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John Jameson

SMITHSONIAN INSTITUTION

Fiscal Year 1976

Justification of Estimates of Appropriations
To the Office of Management and Budget



ADMINISTRATIVELY CONFIDENTIAL

(Information not to be released until after the President's
Budget is submitted to the Congress in January 1975.)

September 1974

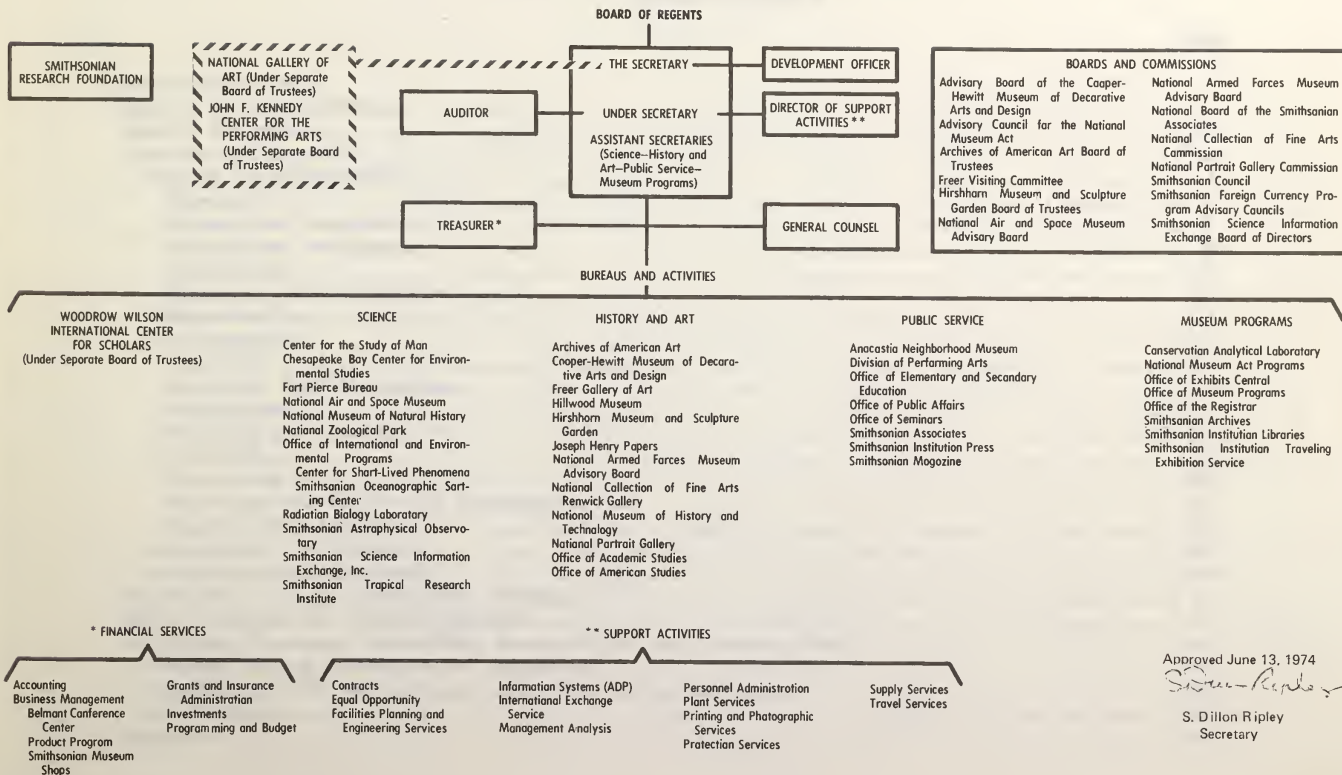
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SMITHSONIAN INSTITUTION



Approved June 13, 1974

S. Dillon Ripley
S. Dillon Ripley
Secretary

SMITHSONIAN INSTITUTION

FISCAL YEAR 1976 ESTIMATES OF APPROPRIATIONS

TABLE OF CONTENTS

	<u>Page</u>
Organization Chart	
Summary of Appropriations.....	i
General Statement.....	ii
Salaries and Expenses.....	1
Regular Operating Budget.....	3
Research.....	4
Collections Acquisition.....	7
Collections Management.....	9
Exhibition.....	11
Education and Orientation.....	13
Registration.....	15
Conservation.....	16
Libraries.....	18
Automatic Data Processing.....	19
Photography.....	21
Printing and Reproduction.....	22
Archives.....	23
Protection.....	24
Buildings and Facilities Management.....	25
General Administration.....	28
Bicentennial Commitments.....	30
Uncontrollable Increases....	40
Smithsonian Science Information Exchange.....	43
Museum Programs and Related Research.....	45
Facilities Planning, Renovation, Restoration, and Construction.....	48
Restoration and Renovation of Buildings.....	49
Construction and Improvements, National Zoological Park.....	56
Construction.....	63
Appendix.....	A-1

SMITHSONIAN INSTITUTION

SUMMARY OF APPROPRIATIONS

(\$1,000s)

Account	FY 1974	FY 1975	FY 1976 Budget Request (Cumulative Increments)							
			Target Level Increase	Subtotal	Bicentennial Commitments Increase	Subtotal	Uncontrollable Increase	Subtotal	Add'l Priority Increases	Total Request
Salaries and Expenses Supplemental	\$58,543	\$67,789 3,059 3,425	\$4,760	\$72,549 3,425	\$4,387	\$76,936 3,425	\$2,620	\$79,556 3,425	\$2,970	\$82,526 3,425
Science Information Exchange Supplemental	1,695	1,755 50	70	1,825 50	-	1,825 50	-	1,825 50	30	1,855 50
Museum Programs & Related Research (Special Foreign Currency Program)	4,500	2,000	-	2,000	-	2,000	-	2,000	1,500	3,500
Restoration and Renovation of Buildings	1,070	1,490	(125)	1,365	-	1,365	-	1,365	3,505	4,870
Construction & Improvements, National Zoological Park	3,790	9,420	580	10,000	-	10,000	-	10,000	15,260	25,260
Construction (Appropriation and Liquidation of Contract Authority)	17,000	7,000	(7,000)	-	-	-	-	-	3,690	3,690
Totals - Regular	\$86,598	\$89,454	(\$1,715)	\$87,739	\$4,387	\$92,126	\$2,620	\$94,746	\$26,955	\$121,701
Totals - Supplemental		\$3,109 \$ 3,475		3,475		3,475		3,475		3,475
		\$ 92,929		\$ 91,214		\$ 95,601		\$ 98,221		\$ 125,176

GENERAL STATEMENT

Founded in 1846, the Smithsonian Institution is an independent establishment devoted to basic research, care and documentation of collections, public education, and national service in the arts, sciences, and history. Its work is conducted in the United States and in many foreign countries. It is the world's largest museum complex, attracting more than 20 million visits yearly to its museums, galleries, and zoological park, as well as additional millions who view its traveling exhibitions appearing across the United States and abroad and its annual folklife festival. As custodian of the National Collections, it possesses more than 70 million natural history specimens, artifacts, and art objects, only a few percent of which are on public display. The rest are available for scholarly study by the staff of the Institution and by many hundreds of visiting students, scientists, and historians each year. A wide range of programs, including grant-supported activities, are conducted with other museums and similar institutions, with colleges and universities, and with Federal, State, and foreign government agencies and activities. Active education programs are conducted from the elementary to the senior postdoctoral levels. Major museum buildings, laboratories, collections spaces, and wildlife preserves provide facilities for these purposes.

Smithsonian conferences on goals and priorities held in February 1973 and 1974 helped to identify and reaffirm areas of budget priority, explored new organizational and management approaches that would result in more effective use of existing resources, and led to improvements in the development and exchange of information on program and project status. Among the conclusions reached at these sessions and further developed through the Institution's planning, budgeting, and other management processes were the following:

--Basic scientific and historical research is the foundation of the Institution's accomplishments and potential in its principal areas of output: the preparation and dissemination of scholarly research works and educational exhibits. Studies of man, his natural environment, and his cultural and technological progress must be given high priority.

--Museum collections at the Smithsonian and in other museums in this country are extraordinarily valuable national resources. Consequently, the Institution has an important responsibility to ensure the careful registration, conservation, and documentation of its own collections. It must also take a leadership role in the development of techniques and processes in collections management and preservation that will have applicability and benefit to all museums.

--The Institution's museums and laboratories are rich resources for education at all levels of public and academic interest. Concerted efforts must be given to reach new local and national audiences by means of teacher-training workshops, school tours and extension services to schools, fellowships, opportunities for training in museum and laboratory skills, new publications, television, and traveling exhibitions.

--The wide array of research and exhibition talent and the availability of rich and pertinent collections must be marshalled to make a broad and lasting contribution to the commemoration of the Nation's Bicentennial.

--Self-help measures to provide a portion of the resources required to implement Smithsonian programs must be developed. The magazine Smithsonian, museum shops, commercial publishing and national television arrangements, and the development of educational products to be marketed are examples of sound such ventures.

--Support resources (such as those applied to buildings maintenance, registration, and exhibits preparation) currently available must be organized and used to provide more responsive delivery of services to program needs and must be augmented when study indicates that current levels are deficient for acceptable response.

Further information on the implementation of these objectives, on the application of base resources and resulting accomplishments, and on the requirements for new resources for these purposes is contained in this budget document.

The FY 1976 budget is presented at various funding levels within the several appropriation accounts. These estimates do not include anticipated, essential supplemental appropriations in FY 1975 (continuing in the base in FY 1976) to meet the large costs of new legislated General Schedule and Wage pay raises expected in FY 1975. These levels are:

--Budget authority of \$87,739,000 which would provide funds for high priority research program development and for the continued phased correction of identified support service deficiencies; allow some enhancement of the Science Information Exchange's ability to serve new national and international audiences; fund a very substantially reduced level of Special Foreign Currency Program grants; provide for an inadequate level of building and facility repairs, maintenance, and improvements; and continue the National Zoological Park's renovation program. This level is within about \$300,000 of the Office of Management and Budget's target amount of \$87,222,000 when an adjustment of \$200,000 in budget authority is made for the National Museum Act transfers to the Endowments for the Arts and the Humanities which are no longer required by legislation.

--Budget authority of \$92,126,000 which reflects the essential increment of funds required for program development and supporting services for the Institution's Bicentennial commitments, including the opening of the National Air and Space Museum. All Bicentennial activity is separately identified as requested by the Office of Management and Budget.

--Budget authority of \$121,701,000 which would further strengthen traditional and important program and support work; assist the Science Information Exchange to serve more responsively a wider segment of the research community; restore a portion of base funding for the Special Foreign Currency Program; allow the Institution to maintain and improve a valuable physical plant; step-up the implementation of the National Zoological Park's Master Plan at projected substantial savings of costs; begin detailed planning for the badly-needed Museum Support Facility; and meet the final payment liquidating the contract authority for the construction of the National Air and Space Museum.

Details on these requirements are in the following sections of this budget arranged by appropriation account.

SALARIES AND EXPENSES

The Smithsonian's operating program includes as major components four history and science museums: the combined National Museum of Natural History and National Museum of Man, the National Museum of History and Technology, and the National Air and Space Museum, with its new building to be opened in July 1976. There are seven art museums: the Freer Gallery of Art, the separately administered National Gallery of Art, the National Collection of Fine Arts, the National Portrait Gallery, the Renwick Gallery, and the Cooper-Hewitt Museum of Decorative Arts and Design in New York, and the Hirshhorn Museum and Sculpture Garden, which will open in October 1974. Each of these museums and galleries has extensive research, exhibition, and public service activities.

There are other major components of the Smithsonian in Washington. The Radiation Biology Laboratory in Rockville, Maryland, studies the effects of solar radiation. The National Zoological Park, with research, animal conservation, and exhibition facilities in Rock Creek Valley, as well as Front Royal, Virginia, annually attracts more than five million visitors. Hillwood, the 25-acre estate bequeathed to the Smithsonian by Marjorie Merriweather Post with an endowment for its operation, is being readied for a public opening in FY 1976. The national cultural center, the John F. Kennedy Center for the Performing Arts, is a separately administered bureau under its own Board of Trustees. Also in Washington, the Anacostia Neighborhood Museum operates in a low-income area of the city in cooperation with the local community. There is an oceanographic sorting center at the Washington Navy Yard. In addition, a center for advanced study, the Woodrow Wilson International Center for Scholars, conducts an active fellowship program for scholars representing a broad range of disciplines and occupations.

Other facilities and activities stretch across the nation and around the world. Chief among these is the Smithsonian Astrophysical Observatory in Cambridge, Massachusetts, which itself operates major installations in other parts of the United States and field stations in several nations, and the highly regarded Tropical Research Institute centered in Panama. Other national and international facilities include the 350-acre Belmont Conference Center in nearby Maryland; the 2,500-acre Chesapeake Bay Center for Environmental Studies; centers in New York, Boston, Detroit, and San Francisco supporting the work of the Washington-based Archives of American Art; and an oceanographic sorting center in Salammbô, Tunisia, whose work parallels the programs of the Institution's oceanographic center in Washington.

The work of these and other program activities is supported by a variety of administrative and technical staffs; some functioning as central organizations, others operating under the supervision of a specific museum or research program director. This budget continues to give high priority to the effort begun last year to strengthen these support staffs. In addition, however, this budget also addresses high priority program needs---an area for which, excluding Bicentennial commitments, no additional resources were requested for FY 1975. The effects of inflation and the importance of the program activities strongly recommend selective strengthening of the program functions of the Institution.

The FY 1976 operating budget for Salaries and Expenses, which is outlined below, is presented in three categories: the Regular Operating Budget (program activities and support services, excluding funds related to the American Revolution Bicentennial and the National Air and Space Museum), Bicentennial Commitments, and Uncontrollable Items. In summary, the following budget is requested.

FY 1975 appropriation \$ 67,789,000^{/1}

Increases:

Target Level Increase	\$ 4,760,000
Bicentennial Commitments	4,387,000
Uncontrollable Items	2,620,000
Additional Priority Requirements ...	<u>2,970,000</u>

Total FY 1976 budget authority \$ 82,526,000

Pages 3 through 42 describe the Salaries and Expenses program under three headings: Regular Operating Budget, Bicentennial Commitments, and Uncontrollable Items. Past year, current year, and budget year summaries are as follows:

(\$1,000s)

	FY 1974		FY 1975		FY 1976			
					Increase		Total	
	MY	\$	MY	\$	MY	\$	MY	\$
Regular Operating Budget	2,624	54,095	2,838	59,732	279	7,730	3,117	67,462
Bicentennial Commitments	152	4,448	226	8,057	149	4,387	375	12,444
Uncontrollable Items	-	-	-	-	-	<u>2,620</u>	-	<u>2,620</u>
Total	2,776	58,543	3,064	67,789	428	14,737	3,492	82,526

^{/1} Excludes necessary funding for FY 1975 costs of legislated General Schedule and Wage pay raises estimated at \$3,059,000.

REGULAR OPERATING BUDGET

(Excludes Bicentennial Commitments and
Uncontrollable Items which appear on pages 30 and 40)

FY 74
BAR

(\$1,000s)

Program					FY 1976 Increase				FY 1976 Total			
	FY 1974		FY 1975		Target		Additional		Target		Target & Add'l.	
	MY	\$	MY	\$	MY	\$	MY	\$	MY	\$	MY	\$
Research	417	11376 ⁶³⁶	420	11437	22	740	29	625	442	12177	471	12802
Collections Acquisition	29	834	30	874	-	215	-	20	30	1089	30	1109
Collections Management	222	3587 ³⁶⁶	227	3954	19	272	11	196	246	4226	257	4422
Exhibitions	188	4205 ²⁹⁵¹	201	4566	11	322	13	320	212	4888	225	5208
Education & Orientation	121	3239 ²⁰⁸	126	3392	8	417	3	103	134	3809	137	3912
Total	977	23241 ⁴¹⁶¹	1004	24223	60	1966	56	1264	1064	26189	1120	27453
Support												
Registration	43	672	48	854	-	3	5	65	48	857	53	922
Conservation	27	568	45	1016	2	74	4	122	47	1090	51	1212
Libraries	64	1127 ¹⁷	78	1494	3	233	3	235	81	1727	84	1962
Automatic Data												
Processing	26	856	34	986	2	26	7	103	36	1012	43	1115
Photography	43	776	47	832	2	35	2	23	49	867	51	890
Printing & Reproduction	35	1168	37	1307	2	21	2	24	39	1328	41	1352
Archives	24	388	30	500	5	56	1	50	35	556	36	606
Protection	391	4711	415	5696	14	716	16	422	429	6412	445	6834
Buildings & Facilities Management	655	13300	733	15009	43	1131	24	536	776	16140	800	16676
General Administration	339	7288 ²⁷⁰	367	7815	20	499	6	126	387	8314	393	8440
Total	1647	30854 ²⁸⁷	1834	35509	93	2794	70	1706	1927	38303	1997	40009
Grand Total	2624	54095 ⁴⁴⁴⁸	2838	59732	153	4760	126	2970	2991	64492	3117	67462

325 (Retrospective pay - put in General Admin)
4449
58,868 agrees with SI Year

REGULAR OPERATING BUDGET

RESEARCH - Since its establishment 128 years ago the Smithsonian Institution has maintained original research as the keystone of its efforts to increase knowledge. Scholarly research at the Smithsonian is not confined to the sciences, but receives growing emphasis in the humanities and arts. The characteristics of this activity include work of the highest quality, primarily basic and fundamental research and long-term continuity. This tradition of continuity enables the Smithsonian to provide the Nation with a unique and invaluable series of baseline data. To insure that the results of this research are widely disseminated and put to practical applications as rapidly as possible, increasing attention is being paid to strengthening Institutional ties with universities, state and Federal agencies.

Research is much more than the scholarly communication of experts; it is the essential work that holds many other program components together. New exhibits are created and made meaningful by the strong underpinning of scientific, historical, and curatorial research. The National Collections become important, useful resources through the application of research. The act of collecting is made selective and rational by ongoing research. Meaningful publication would not materialize without research.

Research is carried out at specialized major research centers located in six states (Massachusetts, New York, Arizona, Virginia, Maryland, and Florida), the District of Columbia and the U.S. Canal Zone. Studies are also conducted at smaller stations and field sites located throughout the Nation and the world. Priority attention is paid to providing the research staff with maximum support in pursuing their specialized studies, providing the facilities with the most effective equipment and protection, and encouraging the widest possible availability of the Institution's scientific resources to students, organizations, and the public.

Against this background, the Smithsonian's history and art activities are able to serve the general public through exhibits, demonstrations, lectures, publications, and performances on the strength of prior and ongoing research into the history of art, science and technology, government, industries, American culture, and the applied arts. The scope of this research ranges from the detailed analysis of individual paintings and sculptures to the study of the entire works of various artists and schools of art, from the history of a particular stamp to the history of our postal system, from the papers of an individual statesman to his portraits to his proper place in American history. In each instance these researches, whether specific or general, are firmly grounded in artifacts and works of art in the National Collections. During FY 1974 significant research activity in the history area was directed primarily toward an unprecedented number of major exhibits and accompanying publications being readied for the great influx of visitors anticipated in connection with the Bicentennial observance. Important recent scholarly publications include Daniel Boorstin's The Americans: The Democratic Experience; Sami Hamarneh's The Physician, Therapist and Surgeon Ibn Al-Quff, published in Cairo, Egypt; and Volume 1 of The Papers of Joseph Henry.

Scientific research at the Smithsonian covers a very broad range of the sciences, but it could be said that traditional strength and international renown are held in such areas as evolutionary, marine, and

radiation biology; systematics, ecology, and animal behavior; mineral sciences; space studies; and anthropology. A major new initiative currently underway is the establishment by the National Zoological Park of a Research and Conservation Center at Front Royal, Virginia, which will provide a pioneering opportunity to study the reproductive behavior and biology of rare and endangered species. The breeding of such animals should rapidly lead to a decreased demand for the importation of these exotic species, better concepts for the management of captive animals, and significant contributions to our knowledge of animal behavior.

Another recent example of increasing research effectiveness is the creation by the Smithsonian Institution and Harvard University of the Center for Astrophysics which has proven to be an excellent means of increasing research productivity, promoting interdisciplinary work, providing more efficient use of facilities, and improving advanced training in astrophysics. Particular promise appears in the area of high-energy and solar physics research where a better understanding of the sun could lead to advances in the harnessing of solar energy. Advances in this area at the Center, combined with solar light studies conducted by the Radiation Biology Laboratory, should produce important new programs in studies of the sun. Through the Chesapeake Bay Center for Environmental Studies, the Smithsonian had earlier joined a group providing similar advantages, the Chesapeake Research Consortium, which has matured into an effective organization channeling its research on the Chesapeake Bay environment into the hands of those who apply it to the better management of the region.

Research carried out by Smithsonian scientists and those from a variety of U.S. scholarly organizations at the Smithsonian Tropical Research Institute is beginning to make tropical ecology a more predictive science. Recent studies of both terrestrial and marine subjects at the Institute's facilities emphasize the urgent need to have a basic understanding of the tropics where so many of the world's natural resource supply and population problems arise.

Increasing study of the National Collections continues with numerous requests being fulfilled for a variety of applications. The National Museum of Natural History is currently undertaking a Congressional requested study of the endangered plants of the United States. Information for compiling a list of threatened species is being drawn from both the National Collections and a volunteer network of botanists from throughout the country. This study should have an impact on the management of endangered species, improving land-use decisions, and provide a pilot model of an effective communication network of biologists.

In FY 1974 base resources devoted to all aspects of research consisted of 417 man-years and \$11,376,000. Of this amount approximately 142 man-years and \$3,603,000 were devoted to research at the National Museum of Natural History, encompassing all the natural sciences and anthropology; 19 man-years and \$505,000, to tropical biology; 21 man-years and \$419,000, to zoology; 69 man-years and \$1,736,000, to regulatory and environmental biology (including international programs); 51 man-years and \$2,495,000, to astrophysics; and 115 man-years and \$2,168,000, to historical and cultural research, with emphasis towards the production of exhibits. An amount of \$450,000 was directed towards special Research Awards grants furthering research efforts in specific areas of Smithsonian endeavor. In FY 1975 base resources total 420 man-years and \$11,437,000. The slight increase in resources is primarily due to the increase in salary costs.

In FY 1976 an increase of 22 man-years and \$740,000 is requested within the OMB target and 29 man-years and \$625,000 is requested above target. This increase will be used as follows: 19 man-years and \$190,000 to continue correction of the deficiency in support personnel available to provide research and clerical assistance to the scientific and curatorial staff in both the National Museum of Natural History and National Museum of History and Technology; 3 man-years and \$58,000 to undertake the study of the systematics and ecology of corals and related animals (Understanding reef environments, which provide a vital source of protein in many areas of the world, is an essential step in assuring their protection from the effects of industrialization.); 6 man-years and \$148,000 to support research in vital areas of tropical biology, namely, plant-herbivore relationships, mangrove ecology (an area virtually ignored by biologists in the past), and biochemical genetics (to understand subtleties of tropical adaptations) and to provide technician support in the areas of entomological sorting, behavioral analysis, and marine physiology; and \$28,000 to continue and expand the program of bringing distinguished senior scholars to spend a year at tropical research.

It would also allow 2 man-years and \$33,000 for zoological research focusing on the reproductive and general behavior of rare endangered species but also including funds for field research, supplies, and the purchase of specialized equipment; \$45,000 for inflationary price increases in the costs of laboratory supplies at the Radiation Biology Laboratory; \$100,000 to design and construct specialized equipment and to purchase supplies for a high energy astrophysics laboratory, critically needed for the development, testing, and calibration of instruments for rocket and satellite missions and for research on critical materials and detector technology; 1 man-year and \$96,000 to establish an infrared and optical laboratory with the associated electronic and optical equipment for the assembly and testing of optical and infrared instruments; \$39,000 to complete the construction of a spectroscopic light source which will provide a unique capability to measure a wide range of multiple charged ions; 2 man-years and \$26,000 to continue to build Federal core support at the Astrophysical Observatory with the employment of two research technicians to relieve Federal dependence on outside grants

and contracts for technical support staff; 8 man-years and \$175,000 for research in ecosystem science and land use at the Chesapeake Bay Center (Past dependence on outside investigators, temporarily employed on contracts or grants, has created severe problems in program continuity. Only one full-time staff scientist position has been established at the Center as of late FY 1974; and 2 man-years and \$40,000 to fund initial costs associated with the establishment of Anthropological Film Archives.

Furthermore, it would provide 4 man-years and \$100,000 to intensify work of the Research Institute on Immigration and Ethnic Studies; 1 man-year and \$30,000 to begin an American Indian program in the eastern states to thoroughly study surviving groups; \$100,000 to allow support of additional meritorious proposals under the Research Awards Program (This program funds non-routine fundamental research and serves as an important means whereby Smithsonian researchers may engage in collaborative, field research with colleagues located in other institutions); and \$100,000 to expand research efforts of the Environmental Sciences Program, permitting more in-depth studies and more sophisticated modeling of data resulting from the long-term research being conducted. (This research involves the assembly and analysis of biological and physical data on specific important ecosystems to predict the consequence of environmental change.)

And, finally, the increase would allow 1 man-year and \$8,000 to assist with preparation of material for publication in the Joseph Henry Papers; 1 man-year and \$12,000 to establish a curatorial internship at the National Collection of Fine Arts; 1 man-year and \$22,000 to establish a rotating curatorial research appointment at the Museum of History and Technology; and \$15,000 to fund research contracts for specific expertise as required by the National Portrait Gallery.

COLLECTIONS ACQUISITION - The Smithsonian's contributions to better understanding and appreciation of man's natural environment and his cultural and technological achievements result substantially from research on and exposition of the National Collections. Information on these collections, numbering some 70 million objects and specimens in the fields of art, history, and science, is made available to the scholarly and general public in a variety of ways: research reports, catalogues, lectures, exhibitions, and in reference storage areas that are used heavily by the staff and visiting students and scholarly researchers in conjunction with the Institution's archival and library resource materials.

These collections have come to the Institution in several ways. Primarily, they have come as a result of field research and collecting by Smithsonian and other anthropologists, biologists, and geologists and through the generosity of public-spirited American and foreign private citizens and organizations who have given objects or funds for their purchase. To a very limited extent, they have come as a result of the expenditure of Federal funds. Over the past 128 years since its establishment in 1846, the Institution, under the Board of Regents and statutory authorization (including

20 USC 50, 55, 59, and 60), has been the recipient of hundreds of thousands of donations and bequests to the National Collections. These gifts have been important---first, because they have filled gaps in the documentation of man's surroundings and achievements and, second, because they demonstrate that the Institution enjoys the support and confidence of its public. While it is impossible to list here all of the most significant of such gifts, the diversity and continuing nature of public support is shown by the gift of Charles Lang Freer of his collection of Oriental art; the gift of the Star-Spangled Banner by Eben Appleton, grandson of the commander of Fort McHenry; bequest by Orville Wright of the Original Wright Brothers Flyer; Harry Winston's gift of the Hope Diamond; several thousand paintings and sculptures given by Joseph H. Hirshhorn; and the gift of the Josiah K. Lilly collection of gold coins.

Although many donated items in the collections could not be assigned a monetary worth that would take into consideration their value as national treasures (as, for instance, the Star-Spangled Banner) it is safe to say that their total value far exceeds the amount of public funds that have been spent on their care, study, or exhibition. Furthermore, each year there are some 20 million visits to the Smithsonian's museums, galleries, and zoological park. The visitor's pleasure and education is enhanced greatly by the opportunity to see rare specimens, important historical artifacts, and great national treasures that have come from private sources.

While the Smithsonian will continue to rely heavily on donated objects and specimens, it is very important that such acquisitions be supplemented with purchased items. Purchase funds are required to replace and upgrade the quality of objects already in the collections and to acquire particular objects to establish fully representative reference collections or to display in a new exhibition. Frequently these objects are available only from dealers. Prices continue to rise astronomically as competition for scarce objects intensifies.

Purchase funds are in limited supply at the Smithsonian in comparison with many other major (and some minor) museums. For example, a major museum in Massachusetts spent over \$2.3 million on acquisitions in FY 1973. In FY 1974 Federal resources for collections acquisition totaled approximately 29 man-years and \$834,000. This includes, however, personnel costs of \$420,000 for curatorial personnel primarily in the National Museum of Natural History and National Museum of History and Technology who are engaged in field collecting and developing of contacts with potential donors. Of the \$414,000 balance, only about \$388,000, primarily in the National Museum of History and Technology, the National Collection of Fine Arts, and the National Portrait Gallery, were available for actual purchases of objects. No significant change to these amounts is projected for FY 1975 although the purchase funds are usually among the first that have to be curtailed if other, less controllable costs, such as pay raise absorption, rise. Nor does the Institution have substantial

private funds for the purchase of objects and what funds are available are almost entirely restricted to certain types of purchases by the terms of the donation or bequest. In FY 1974 and 1975 only about \$400,000 of private funds are available for acquisitions of which over \$300,000 is restricted to the use of the Freer Gallery of Art. When individual objects may cost tens or hundreds of thousands of dollars, these Federal and private funds do not cover many purchases.

A high priority of the Institution is to increase these funds. Some additional private fund allocations may be possible as the Smithsonian's self-help measures (such as the magazine Smithsonian, museum shops, and various educational product development projects) are successful but augmented Federal funding also is required. Within the target level, an increase of \$215,000 is requested for collections acquisition and an additional \$20,000 is requested over target. This additional funding will be allocated as follows: National Museum of History and Technology (\$100,000), National Collection of Fine Arts (\$50,000), and National Portrait Gallery (\$50,000). With the estimated base funding of about \$388,000 for these activities, the increase will bring the total available to about one-third of the 1980 goal of \$1,600,000 for purchases. Funds in the amount of \$35,000 are also requested for the National Zoological Park to purchase animals. In FY 1976 the Lion-Tiger Complex and several lesser areas will be opened to the public; special animals are needed to fill significant deficiencies in the collections. The National Zoological Park not only wants to acquire animals through purchase but by field collecting. They will also be seeking animals, especially endangered species, for the conservation facility at Front Royal.

COLLECTIONS MANAGEMENT - While research is the chief intellectual activity of the Museum, the chief managerial activity is the care of the collections. It is the collections which distinguish a museum from all other institutions of learning or cultural establishment. The millions of objects and natural history specimens in our collections, including the animals at the National Zoological Park, require a great deal of highly skilled care; and, of course, as the collections grow, the required amount of such care increases. The safeguarding of the objects requires:

- adequate physical facilities for receiving, sorting, inspecting, storing, exhibiting, and conserving;
- adequate administrative procedures to accession, catalogue, research, and retrieve data;
- a sufficient staff to carry out regular activities without backlog, and sufficiently well-trained to apply the highest prevailing standards and to improve upon them.

Collections management responsibility interfaces with the registration effort at time of acceptance and when loans are to be made; it interfaces with conservation when specimens are made available for special treatment; it interfaces with research and scholarship when specimens are made available to scholars for their examination, study, or use. Collections management involves documentation relating to the collections such as the creation of specimen labels, serial catalogues of specimens, and other

kinds of inventories, as well as all aspects of the ordinary physical care of the specimens such as routine cleaning, filing or ordering duties, and preservation operations. Major strides have been made in the overall management of collections at the Smithsonian with the development of a generalized computer system for the collecting, indexing, and retrieval of data. Benefits from this system will include catalogues, cross referencing indices by categories, and better inventory control.

The animal collection at the Zoo presents many additional and unique aspects of collections management. In order to maintain the collection itself through reproduction, and to conserve endangered species, programs of animal care and propagation must be developed. Much of this effort goes into the determination of the captive needs of each species for both maintenance and reproduction.

In FY 1974 base resources directed to this area totalled 222 man-years and \$3,587,000. This included personnel costs of \$3,022,000 for 13 collections managers and curators, 130 museum technicians and aids, 52 animal keepers, 9 commissary stewards and tractor operators, and 18 clerical and administrative personnel. Support funds of \$565,000 were used primarily for animal food (\$175,000) and storage containers and facilities of all kinds including related preservation materials (\$200,000). The balance of funds was used for specialized equipment and related expenses. Base resources in FY 1975 are expected to total 227 man-years and \$3,954,000. The increase in resources is associated primarily with increased pay costs and expansion of collections management efforts at the Hirshhorn Museum and the National Zoological Park (including the newly acquired Front Royal facilities).

For FY 1976 an increase of 19 man-years and \$272,000 is requested within the OMB target, and an additional 11 man-years and \$196,000 is requested above target. Of the increase, 15 man-years and \$150,000 will be used to provide collection area and laboratory assistants to National Museum of Natural History (NMNH) scientists, thereby relieving them of the less technical work and increasing their efficiency and productivity. Real damage and loss is occurring to valuable specimens because of slowly evaporating preservative fluids, crumbling labels, and deteriorating containers. This increase, together with related resources requested under research, will bring the museum close to its interim goal of 2 support personnel for each NMNH scientist. An additional \$10,000 is requested to expand the program in which American Indians are brought to the Smithsonian to assist in identification and cataloguing of materials related to their own tribes, and 1 man-year and \$30,000 to establish a visiting scientists program at the NMNH. Scientific experts participating in this program would devote a substantial portion of their time to the curation and improvement of the collections in their respective fields of specialization and would also be of value to the Museum's staff through the pooling of knowledge and experience. The experts would be called upon to create collections where the Smithsonian does not have existing expertise.

Also included in the requested increase are 2 man-years and \$34,000 to provide an associate curator of photographs and film for the National Portrait Gallery, clerical support, and necessary supplies and equipment. Biographical films and photographs are a necessary compliment to statuary and paintings at the Gallery and are required to produce a complete graphic record. An additional 1 man-year and \$25,000 is requested to permit the hiring of a curator for the Arts and Industries Building. Among other responsibilities, the curator will be responsible for the acquisition and inventory of antique furnishings that will be acquired to restore public areas close to their original 1880 appearance.

An increase of 11 man-years and \$219,000 is requested for collections management functions at facilities of the National Zoological Park. This includes 4 man-years and \$66,000 to manage the Front Royal Conservation and Research Facility, care for the animals, sustain full hay production and pasture management, and maintain tractors and other equipment in operable condition. An additional 6 man-years and \$82,000 are requested to care for the enlarged animal collections being placed into the newly constructed exhibit areas and structures. An adequate staff of animal keepers is essential to insuring the animals' well-being and maintaining proper conditions for breeding and rearing of the young. And finally, 1 man-year and \$13,000 are requested to hire a medical technician to assist in the area of health care and to purchase medicines, diagnostic tools, and record retrieval systems so that the best and timeliest treatment can be provided.

EXHIBITION - Exhibition--a key function for any museum--is of particular importance to the Smithsonian in fulfilling its legislated charter for the diffusion of knowledge and its additional responsibilities as custodian of the National Collections. Through the display and interpretation of its holdings, the Institution strives to create an environment of learning and enjoyment, and an awareness, understanding, and appreciation of our heritage.

Exhibitions at the Smithsonian are as varied in content as the collections themselves. A few of the exhibitions scheduled to open in FY 1975 are: "Ice Age Mammals and the Emergence of Man"; "We the People," a major new hall of American political history; "Life in the Universe," a presentation examining the birth and death of stars and galaxies; "American Art in the Barbizon Mood"; "20th Century American Furniture"; "Japanese Birds and Flowers"; and Bicentennial related exhibits such as "The Dye Is Now Cast, 1774-1776," an exhibit tracing with portraits and period settings the major events of that period; and the opening exhibition of the Hirshhorn Museum and Sculpture Garden. In addition, as various components of the Zoo Master Plan are completed, they will be accompanied by new interior and exterior exhibits and graphics. To increase the educational usefulness of these and other exhibitions, catalogues and kits of educational materials designed for schools are being prepared in increasingly large numbers; new exhibit techniques and audio-visual applications are being developed; and psychological studies are being conducted to learn more about museums as learning environments.

The Institution has recognized that it had a duty to assist museums and other educational, scientific, and cultural institutions around the country in presenting to their communities a richer museum experience. Positive action reflecting this concern has taken the form of the very successful Traveling Exhibition Service (SITES) which over the past 22 years has made available hundreds of exhibitions of high quality, at modest cost, to museums, historical societies, colleges, universities, and cultural centers. Almost 5 million persons view SITES exhibits annually. Major emphasis is being given to incorporating into traveling exhibitions Smithsonian objects as well as concepts, so that the Institution's resources on the Mall can be shared more broadly with the Nation at large. In addition, the National Collection of Fine Arts, working with the United States Information Agency, has sponsored the circulation abroad of exhibitions of American art, past and present.

A major reorganization in the design and production area involved the transfer of personnel and associated resources (approximately 110 positions and \$1.9 million) from the Office of Exhibits Programs to the National Museum of Natural History, the National Museum of History and Technology, and the National Air and Space Museum. The purpose of this action was to develop more effective application and management of base resources by putting them under the direct control of a program manager. A small central exhibits office was retained to provide certain specialized exhibit capabilities and to service those museums and bureaus too small to have an exhibition resource of their own.

In FY 1974 base resources consisted of 188 man-years and \$4,205,000. This included personnel costs of \$2,883,000 for 20 administrative and clerical personnel and 168 man-years expended in designing, film making, illustration, editing, cabinetmaking, and other exhibit production and maintenance tasks. Major expenditures of the \$1,322,000 in program funding were for the purchase of audio-visual equipment, contracts for exhibit maintenance and temporary construction, and miscellaneous supplies and equipment such as plexiglass, paint, lumber, and plastic. Base resources in FY 1975 of 201 man-years and \$4,566,000 will fund an increasingly active exhibits effort particularly in the area of exhibit maintenance and refurbishment and will expand current programs of the National Zoological Park and the Traveling Exhibition Service.

For FY 1976 an increase of 11 man-years and \$322,000 is requested within the OMB target, and an additional 13 man-years and \$320,000 is requested above target. The increase would be used as follows: 10 man-years and \$230,000 to begin the refurbishment and redesign at the National Museum of Natural History (NMNH) of over 30 major exhibit halls aimed at organizing presentations not merely by scientific disciplines but in such a way as to display the interrelationships between man, animals, plants, and the inorganic world; 3 man-years and \$50,000 for the design and production of exhibits at the National Zoological Park (NZP) which will portray more vividly and accurately the true habitat and behavior of collection animals; and \$45,000 to fund the production of temporary exhibits for the National Collection of Fine Arts and the Renwick which, due to inflation, are continuing to rise in cost. It would also allow 3 man-years and \$77,000 to provide administrative as well as specialized exhibit support to Smithsonian bureaus with small but innovative and essential exhibit programs, such as the Anacostia Neighborhood Museum, and \$20,000 for

the development by the Traveling Exhibition Service of a traveling exhibition based on and containing artifacts from the National Collections; it is planned to produce 5 or 6 additional copies of this exhibition without artifacts. In addition, 1 man-year and \$55,000 to improve the graphics presentation at the NZP in coordination with Master Plan redevelopment and with the financial support and cooperation of the National Endowment for the Arts; and 3 man-years and \$60,000 to continue efforts relative to the maintenance and refurbishment of exhibits and exhibit areas in the National Museum of History and Technology which, while accommodating an extraordinary number of visitors since 1964, have become worn and dirty. Furthermore, it would provide \$37,000 to cover rapidly rising shipping costs at the National Portrait Gallery, resulting from the need to supplement a relatively small collection with borrowed items, and to purchase various supplies and materials required to install exhibits in the newly renovated 3rd floor gallery and 4 man-years and \$68,000 to further develop the capabilities of the Traveling Exhibition Service, the Anacostia Neighborhood Museum, as well as other small units with exhibit responsibilities.

EDUCATION AND ORIENTATION - Education and public orientation at the Smithsonian are aimed at a large and varied audience. In order to make the exhibits and research of the Institution meaningful to the visitor and the larger national audience who cannot come to Washington, a variety of educational activities have been developed.

At the elementary and secondary school levels, tours of the museums' most popular exhibits are conducted. In FY 1974, major efforts to improve the educational value of these tours included the commencement of regularly scheduled teacher training workshops and the expansion of ongoing programs such as docent-escorted lesson tours of exhibits for visiting school groups, the development of teacher preparation guides, audio-visual aids, and three-dimensional object kits.

During FY 1974, 34 teachers participated in the initial workshop session and 2,900 docent-conducted, instruction tours were provided for an estimated 69,000 elementary and secondary school students. The teacher workshops have been so popular that in July and August an additional 266 teachers participated. School systems have experienced drastic increases in operational costs over the past year, particularly in energy-related areas. As a result many schools have been forced to reduce their programmed visits to the Smithsonian museums and galleries, thereby making it imperative that the Institution increase its efforts to provide educational offerings, such as the aforementioned audio-visual aids and object kits, which can be utilized at the schools. These are of particular benefit to the D.C. public school system, which lacks its own bus facilities. Of special interest to this program is the Mobile Van operated by the Anacostia Neighborhood Museum. This mobile unit takes small loan exhibits, speakers and demonstrations, and small educational kits to schools as well as churches and community organizations. The primary focus of its presentations has been on the history and culture of people of African descent and urban concerns like the rat.

Now nearing completion is an Exhibits Training Laboratory for the Anacostia Neighborhood Museum. The Exhibits Training Laboratory was constructed with Federal funds, and the Ford Foundation has made a grant for the training of minority, inner city people in the skills needed to produce exhibits.

At the university level and above, programs of pre- and postdoctoral fellowships are conducted. The fellowships are granted to students majoring in areas of Smithsonian concern. These programs allow students to collaborate and study with Smithsonian scientists and historians and to use the collections. National and international seminars and symposia are held on timely and important topics and the results published.

For the museum community a program of technical assistance is funded under the National Museum Act. Specific grants will advance the museum profession at large through training, research, publications, or professional assistance with special emphasis on conservation.

For the general public, building guides (both general and specific) are distributed. Attractive posters and signs are placed to tell the visitor of special activities and exhibits and about other parts of the Institution. Pamphlets about the Institution and its various bureaus are published. News releases and bulletins are distributed.

Visitors also benefit from demonstrations carried on as part of the exhibits. Currently there are demonstrations in spinning and weaving, printing and type founding, and musical instruments. There is also a daily showing in the Experimentarium/Spacearium of the show "To see the earth as it truly is"--a trip past the moon, the solar system, the Milky Way galaxy, to a hypothetical distant cluster of galaxies. The viewer is able to look back at each point to see the earth and its place in the universe.

Leaflets and letters are also used to respond to specific inquiries from the public, mostly school children, but also scholars and collectors. The Institution, also as a public service, will identify objects brought in by the general public but will not give monetary values.

Of special interest to the Washington community is the annual Festival of American Folklife which has in the few years since its inception become one of the most popular features of the Washington summer season as well as the Nation's most professionally respected presentation of America's folk arts and their origins.

To the Washington audience and also to the wider audience of the Smithsonian public located away from the museums, the following educational programs are offered: a touring performance division which takes foreign performer troupes from the Folklife Festival to other cities (some 80 performances were arranged in 15 major cities in 1974), the Smithsonian puppet theater productions, and presentations of unique educational music and theater which were presented in 26 states during 1974. The Smithsonian radio program and scheduled television programs are important national educational offerings.

The Institution is also involved in the exchange of publications between the United States Government and private institutions and like institutions abroad. This is the oldest activity classified as "Education" and goes back to 1849.

The FY 1974 resources included 121 man-years and \$3,239,000 for Education and Orientation. Twenty-five (25) man-years were devoted at the elementary and secondary level; 10 man-years were applied at the higher education level; 9 man-years were given to publications exchange; 17 man-years were devoted to public orientation through the various medias, newspapers, television, and radio; 7 man-years were used for programs for the museum profession; 10 man-years were used to provide demonstrations; 14 man-years went to answer public inquiries and identify objects; and 29 man-years were used for developing additional education programs for the public, for several small specialized education programs and overall supervision of the education and orientation area at a cost of \$1,597,000. Spending in other objects amounted to \$1,642,000, of which \$823,000 were for grants under the National Museum Act; \$255,000 were for pre- and postdoctoral stipends; \$70,000 went for shipping of documents; and \$50,000 were spent for brochures and leaflets. The balance went for related expenses such as travel, furniture, and equipment.

In FY 1975 the resources expected to be available for this area are 126 man-years and \$3,392,000. The same general programs will be offered. Tours of exhibits led by volunteer docents will be extended to the Hirshhorn Museum and Sculpture Garden. A public tour will be under development at Freer and school groups in larger numbers will participate in environmental education field programs at the Chesapeake Bay Center.

In FY 1976, 11 additional man-years and \$520,000 are requested for education. Eight (8) man-years and \$417,000 are requested within the OMB target and an additional 3 man-years and \$103,000 as other priority requirements. The major portion of the priority increase would be used to develop a visitor orientation program for the National Museum of History and Technology and to extend the docent-guided tours to the physically handicapped. An experimental program was run in FY 1974 and proved very popular. Funds are sought to extend the successful teacher workshop to a year-round program. The pre- and postdoctoral programs would be augmented to enable several additional fellowships to be offered and to increase the size of the stipends to meet the higher cost of living. Funds are also sought to improve the education programs offered by the bureaus especially in the area of art. Additional funds would be applied to the national needs being helped by the National Museum Act.

REGISTRATION - The registration system is a critical element in the documentation, control, and preservation of the National Collections. It encompasses all significant actions on museum specimens, including, for example, legal documentation by deed of gift, preparation of specimens for shipment, arrangements for loans for exhibitions, and insurance coverage. During the past fifteen years, increases in curatorial staff, addition of new museums, and great increases in the size of the collections, have placed severe strains on the registration system. The National Collection now numbers over seventy million objects and specimens. The new management system for registration at the Smithsonian is discernible even though

still quite far from realization. The centralized registration staff, now outmoded by the growth and diversity of the Smithsonian, will be replaced in each museum by an independent registration capability, adequate to ensure proper documentation of all acquisitions and to work with curators and conservators to ensure the security and availability of specimens. The much smaller central registrar staff will have several functions, most important of which will be (1) the development of new registration techniques required by the complexities of the collections, and (2) the establishment and maintenance of an Institution-wide overview of the collections and the systems which protect and service these resources. Most of the personnel resources of the old central registrar's office are being distributed to the museums. Furthermore, in FY 1974, as an initial step in this reorganization, the mail and messenger staff attached to this office were transferred to the Office of Plant Services in order to align them more closely with necessary vehicle services. These reorganizations of staff will result in more effective use of base resources. Nevertheless, to implement modern information systems, additional resources are required.

FY 1974 resources consisted of 43 man-years and \$672,000. This includes personnel costs of \$442,000 for 6 administrative and clerical personnel, 10 registrars and assistant registrars, 20 technical assistants, and 7 shipping clerks. An amount of \$230,000 went for expenditures in other objects including \$111,000 for shipping charges with the balance going for specialized equipment, fumigation, and miscellaneous expenses.

FY 1975 resources are expected to be 48 man-years and \$854,000. The man-years includes 6 administrative and clerical personnel, 10 registrars and assistant registrars, 25 technical assistants, and 7 shipping clerks at a cost of \$563,000. An amount of \$291,000 will go for other objects including \$120,000 for shipping charges.

For FY 1976 an increase of \$3,000 is requested, within the target level established by OMB, for transportation of art objects for exhibition. In addition, 5 positions and \$65,000 are requested above target. These funds will be used to upgrade registration in the National Museum of History and Technology as follows: one man-year and \$13,000 for a registrar to assume responsibility for accession papers from the central registrar's office; one man-year and \$11,000 to assist with inventory of the collections; 2 man-years for clerks and \$17,000 to assist with accession records and vastly increased correspondence arising from Bicentennial exhibits; one man-year, a carpenter, and \$12,000 to assist in preservation of collections through proper packing for shipment; and \$12,000 for insurance, transportation, computer use, and fumigation. The registrar of this Museum is attempting to rectify past inadequacies in collections management, especially regarding collections moving to and from the Museum. Also, Bicentennial activities will greatly increase the registration burden of this Museum.

CONSERVATION - Museums house the objects left by our forebearers. We are in an age of rapid change, with the bulldozer ever advancing and tastes constantly evolving. In view of these factors, it is clear that the importance of museums can only increase in the future if we are to transmit to our descendants the heritage which previous civilizations have left to us.

While the visitor is satisfied by a superficial view, the modern scholar studies all parts of an object, even as deeply at its atoms. For this reason it is important to preserve and conserve an object without making any alteration which at best might reduce the value of the object and at worst misinform posterity.

Conservation involves carefully developed and applied techniques to prevent or correct alteration or deterioration. These begin with records of condition (Registration), continue with control of environment (humidity, dust, light, insects, rodents - Buildings and Facilities Management and fumigation facilities), regular observation and careful handling (curators and museum specialists), then conservators may be called in to clean, mend, correct alterations, and restore, while maintaining the record for posterity. Conservation-scientists assist by analyzing products of alteration. ("Disease spots" on a book-binding turned out to be a plasticizer chemical migrating out of the plastic material that covered it.) They also test materials for technically-interested curators. (An elegant black molding proposed for support of a metallic object in a display case was found to contain substances that could cause corrosion during prolonged association. Analysis of a series of pewter pots enabled them to be grouped. This grouping was found to correspond with their English, Scottish, and French origins.) Devising analytical methods suited to museum objects which must not be damaged by analysis is another example of work done by conservators. (X-ray techniques are being adapted to analyze objects without sampling. This involves computer techniques for separating closely adjacent peaks in a spectrum. Organic acids in the corrosion products found on a leaden object were identified as coming from wood in a display case. Neutron-activation techniques, followed by multi-variate statistical analysis have been applied to the study of Spanish-American pottery in order to support attributions from stylistic considerations.) Finally, the conservator assists by discovering hitherto-unrecognized causes of deterioration and by establishing data bases for technical historians.

Conservation skills need to be applied at all levels in the Institution. Information is made available in lectures provided by the Conservation-Analytical Laboratory and through tape-slide lectures and videotapes produced by conservation information programs. Several bureaus have their own personnel who give advice and treatment for their own collections and in the development of slide shows. Other bureaus are served by the Conservation-Analytical Laboratory which also provides scientific assistance to conservators and curators through the Institution.

The need for conservation is increasing. Preparation of every new exhibition reveals damage and deterioration which can barely be corrected by the limited staff available in time for the opening. Yet items exhibited represent much less than 1 percent of the collections! Efforts are being made to increase productivity by automation and by developing a computerized data base with Information Systems Division to which all Institution conservators can eventually contribute and benefit from. Ultimately, however, it is the conservators who have the skills--more are needed with adequate equipment.

The FY 1974 resources consisted of 27 man-years and \$568,000. This included personnel costs of \$390,000 for 5 administrative and clerical personnel, 11 conservators and analytical scientists, and 11

technicians. By comparison, the British Museum has a Conservation-Analytical staff of 75 (including 25 conservators and analytical scientists in the central laboratory); and the Canadian Conservation Institute, with five regional centers, is hiring a staff of 100. The balance of funds (\$178,000) in conservation were obligated for the contract treatment of objects, specialized supplies, and equipment. The total resources devoted to conservation in FY 1974 were \$267,000 less than in FY 1973. This reflects the completion of several special projects in the art galleries prior to exhibit openings. The major decrease was in the Hirshhorn Museum conservation work completed in time for the opening exhibit.

The FY 1975 resources for conservation are expected to be 45 man-years and \$1,016,000. This includes personnel costs of \$630,000 for 5 administrative and clerical, 16 conservators and analytical scientists, and 24 technicians. This is 67 percent more man-years going into conservation than in FY 1974 and is the evidence of the high priority of conservation at the Institution. Other object spending will also increase significantly in FY 1975 to \$386,000. New equipment will be added both to replace obsolete equipment and to add new instrumentation.

For FY 1976 an increase of 2 man-years and \$74,000 is requested within the OMB target and an additional 4 man-years and \$122,000 is requested above target. This request will be used to increase the responsiveness of the central laboratory and to enable the bureaus to continue their efforts to employ knowledgeable staff, to purchase specialized equipment, or to send objects to outside conservators where no in-house expertise exists. Especially important will be the employment of a full-time paper conservator. Much of the National Collections are on paper (prints and drawings). In order to accomplish this restoration in-house, one employee and sophisticated equipment are needed. Paper is probably the most vulnerable of media, and a paper conservator will be able to preserve those art works and historical documents in grave danger of disintegration.

LIBRARIES - The Smithsonian library facilities provide basic support, by means of literature, related materials, and information services, to the research, exhibits, public service, and administrative staff of the Smithsonian and to qualified scholars and interested public. The libraries system consists of 75 branch and bureau libraries and a strong central library which coordinates system-wide plans and policies and provides services and support activities most effectively performed centrally. Among these central services are acquisitioning, cataloguing, binding and preservation, and maintenance of a substantial reference and general library collection and rare book facility. The number of branch libraries is large and their locations widely dispersed (including Panama and Cambridge, Massachusetts), as attempts have been made to maximize the accessibility of the materials for their users. Although in recent years, the larger more active branch libraries have been assigned permanent staff, most branch libraries are serviced by the central library.

The FY 1974 base resources consisted of 64 man-years and \$1,127,000. This includes personnel costs of \$805,000 consisting of 12 administrative and clerical staff and 52 librarians. Major allocations of \$322,000 in program funding were the purchase of library materials, \$186,000; binding, \$40,000; and furniture and

office equipment, \$25,000. There are currently 875,000 volumes in the Smithsonian Libraries. In FY 1974, 44,000 reference questions were answered, 48,500 volumes were circulated from staffed libraries and more from unstaffed libraries. Title searches were made of 26,000 titles.

In FY 1975 base resources will consist of 78 man-years and \$1,494,000. The increase in funding and personnel will assist in providing an acceptable level of on-site information and collection management services, will bolster branch library staff and capabilities, will help to reduce backlogs in cataloguing, binding, and of particular importance, preservation, and will increase the funds available for the purchase of books and journals--the price of which continue to rise dramatically.

For FY 1976 an increase of 3 man-years and \$233,000 is requested within the OMB target and an additional 3 man-years and \$235,000 is requested above target. Included in the target level increase is \$100,000 for the purchase of books and journals, which, with the funds expected in FY 1975, would bring the book and journal purchases fund to \$350,000. Severe inflation (estimated at approximately 35 percent for serials publications and more than 20 percent for monographs during 1974) has decreased purchasing power and greatly reduced the effective impact of FY 1975 increases.

An increase of 2 man-years and \$98,000 is requested to allow binding of all appropriate journals currently received. In FY 1975 the Libraries will be able to bind only approximately one-third of the current journal titles with available funds. Additional staff would also assist in the conservation and preservation of library materials. At least 20,000 leather bound volumes of research importance require immediate treatment to prevent them from crumbling away and at least 700 19th century volumes with paper too brittle to be bound must be microfilmed. In recent years, the Institution has been the recipient of several outstanding collections of rare and valuable materials which enrich both the libraries' and museums' collections. An increase of 1 man-year and \$35,000 will be used to control, secure, and preserve these valuable source materials.

In addition 2 man-years and \$119,000 in the central library would provide the following: (1) improvement and extension of automated routines in order to improve the timeliness of the acquisition process; (2) continued participation in cooperative on-line cataloguing and initiation of pilot studies for a machine produced book catalogue; and (3) refurbishment of bureau library locations and additional staff to provide security and service. One man-year and \$36,000 would go toward preparation of facilities in the Fine Arts - Portrait Gallery Library to house the Juley Archives, a photograph negative collection of American artists and their works, which had its genesis in 1896, and the addition of staff needed to process and continue the Archive once it has been moved to Washington; and \$80,000 to purchase library stacks and furnishings for the library at the Cooper-Hewitt Museum of Design in New York.

AUTOMATIC DATA PROCESSING - Computer specialists, mathematicians, and support personnel work with curators, historians, scientists, and management staff to apply mathematical and statistical techniques to research problems and to develop automated administrative and collection management systems. This support

requires the maintenance of a large computer program library of 350 active programs due to the diversity of application areas in the Institution and hardware requirements. Initially, the Institution's automatic data processing (ADP) activity was concentrated largely on management support activities. In recent years, however, as a better understanding of the computer's potential in relation to the programs of the museums, research areas, and galleries has evolved, approximately 90 percent of the Institution's ADP resources are being expended in support of research and collection management. The design of a generalized data analysis system which will enable the researcher to interface with the computer more readily is now underway. The Smithsonian's collection management system (SELGEM) continues to arouse interest throughout the museum world for its potential as a standard for the computerized management of collections. Currently data from 85 collections has been entered into the system. The FY 1974 effort for this program was directed towards entering additional information from collections already in the system and operating the system more efficiently.

Base resources consisted of 26 man-years and \$856,000 in FY 1974. The personnel costs in FY 1974 totaled \$488,000 for 3 administrative personnel, 16 computer specialists and mathematicians, and 4 computer and museum technicians who work primarily on National Museum of Natural History (NMNH) input into the SELGEM system, and 3 clerical and keypunch personnel. Program funding of \$368,000 was allocated primarily for the purchase of computer time. Major allocations of computer related resources were for registration and collections management, including SELGEM, \$141,000; research related programs, \$152,000; and administrative programs, \$75,000.

In FY 1975 resources for ADP will include 34 man-years and \$986,000. The personnel costs in FY 1975 will be \$556,000 for 3 administrative personnel, 20 computer specialists and mathematicians, and 11 computer and museum technicians working in the units to prepare input for the system. The new resources will be used to start the computerization of the records of the central registrar and to aid data reduction for scientific records. The increase in other object funding of \$62,000 will be applied primarily to the purchase of machine time and specialized supplies.

For FY 1976 an increase of 2 man-years and \$26,000 is requested within the OMB target and 7 man-years and \$103,000 is requested above target. The increase will be used to support and/or expand services to 42 various activities throughout the Institution in the scientific, collections management, and administrative areas. Within an activity there can be from 1 to 20 various customers, depending upon the requirements. As a result of a 5-year ADP resource study completed this spring, it is projected that in addition to the 9 man-years requested, an additional 5 man-year backlog of work will exist.

Of the 9 man-years requested, 4 man-years will be devoted to scientific research applications. During FY 1976 the staff will be involved with projects concerned with ecological studies in the temperate, semi-tropical, and tropical regions of the world. The Chesapeake Bay Center in Maryland is interested in the Rhode River estuary while the Ft. Pierce Bureau in Florida will focus its attention on the Indian River.

The Smithsonian Tropical Research Institute, in conjunction with NMNH scientists, will be studying the environmental and biological variables of an area on Barro Colorado Island in Panama. In contrast to these ecological studies on the earth's surface, three other projects to be provided services are the Mineral Sciences Department (NMNH) analyses of oceanic crust data obtained during project "Deep Drill" in the Atlantic Ocean; the National Air and Space Museum modeling of terrestrial and lunar geology with data from the joint American-Soviet scientific satellite missions; and the Smithsonian Astrophysical Observatory's work in astronomy and astrophysics.

Three man-years will be devoted to collections management which will include support for the individual museum's collections management offices, scientists, and curators. Expanded support will be required for all collections with emphasis towards history and art collections and the formulation of a central registrarial depository with the decentralized collection management offices in the museums. In the area of conservation, resources will be required to begin a pilot project for an automated retrieval and indexing system to handle conservation records. Overall results will benefit the administrative staff by providing catalogues, flexible files, and cross-referencing indexes by categories for researchers and curators, better inventory control, and a future vehicle for responding to non-technical queries by the general public.

Two man-years will be devoted to the expansion of administrative applications and computer software technology. Of major concern will be the Institution's desire to expand ADP to areas such as electricity use management, facilities management, remote job entry, teleprocessing, source data automation, and security. Preliminary studies indicate that increasing costs in these administrative areas can be more efficiently controlled through the use of a computer rather than with manual control methods. A National Museum of History and Technology pilot project in electricity management will be initiated in FY 1975 to verify this.

PHOTOGRAPHY - Virtually all bureaus and offices, as well as the various publics they serve, have requirements for high-quality photographic materials in support of their research, collections management, and education programs. Photographs are used for scholarly reports, exhibitions and associated catalogues or other publications, illustrated lectures, accession and registration records, and administrative documents. Items used, in a wide range of sizes, include black and white and color photographs, slides, viewgraphs, transparencies, murals, and half-tone negatives. Photographic work is accomplished in an organized manner (primarily by the central Office of Printing and Photographic Services but also by smaller museum laboratories and staff curators and researchers) that includes procedures for studio and on-site photography, processing and printing, captioning, filing and retrieving negatives, preparing responses to public inquiries, and filling orders. Income from sales of about \$54,000 in FY 1974 was used primarily to improve the photographic library files for greater staff and public accessibility.

FY 1974 Federal resources devoted to photography amounted to about 43 man-years and \$776,000. This is significantly more than the level reported for FY 1973 resulting from the first-time inclusion of National Museum of Natural History personnel who traditionally have performed photography in connection with their own field and laboratory research and curatorial work. This base amount includes personnel costs of some \$600,000 for photographers, laboratory technicians, supervisory administrative personnel and clerical support, and research and curatorial personnel occasionally performing those tasks. The \$176,000 of associated program funds was spent on new and replacement equipment (including the establishment of a color processing capability), contractural work primarily for large scale or volume work beyond the capabilities of the in-house laboratories, and studio and processing supplies. In FY 1975, it is anticipated that base expenditures will amount to \$832,000 and 47 man-years for essentially the same purposes.

For FY 1976 additional resources of 2 man-years and \$35,000 are requested within the OMB target level and a further 2 man-years and \$23,000 above target. The target level increase would allow the employment of a senior administrative assistant in the central photographic office to help with scheduling, production, quality control, and personnel and space management matters. It would also permit the addition of a photographer to correct serious backlog problems in the Fine Arts and Portrait Galleries. The above target increase of 2 man-years and \$23,000 would add staff and support funds to the photographic library and processing units of the central office to meet a growing workload.

PRINTING AND REPRODUCTION - Publication activity is a fundamental extension of research and public education activities. Reports necessary for basic and applied sciences and for a deeper understanding of man's cultural and technological achievements are published and distributed to major libraries and scientific institutions. Exhibit catalogues, education pamphlets, and informative leaflets are produced and distributed for the millions of visitors to the Smithsonian. In addition, requirements exist for the printing and reproduction of a variety of manuals, reports, specimen labels, and administrative directives. Investments in scientific and historical research and exhibitions pay additional dividends if the information produced is made available to a wider public.

Resources in FY 1974 consisted of 35 man-years and \$1,168,000. This included personnel costs of \$546,000 for 4 administrative and clerical personnel, 16 editors and printing specialists, 8 publications and distribution clerks, and 7 duplicating equipment operators. Major allocations of the \$622,000 in program funding were for printing and reproduction, including the purchase of supplies and equipment, maintenance of equipment, page charges, and reimbursement to the Government Printing Office (GPO) for a small on-site plant. During FY 1974 the final invoices from GPO for printing at their District Service Office were as much as 193 percent above GPO's estimates. The average increase was 70.3 percent.

Resources in FY 1975 are expected to be 37 man-years and \$1,307,000. This will include personnel costs of \$613,000 for 4 administrative and clerical personnel, 17 editors and printing specialists, 8 publications and distribution clerks, and 8 duplicating equipment operators. Program funds will be spent for the same purposes as in FY 1974.

For FY 1976 an increase of 2 man-years and \$21,000 is requested within the OMB target and an additional 2 man-years and \$24,000 are sought above target. The increase requested would include a printing specialist, 2 additional multilith operators and an illustrator. Various ways are being explored to make funds for printing stretch as far as possible. One of these ways is to run many small in-house requirements on multilith equipment. A specialist is needed to coordinate work done in-house by a variety of processes, including multilith, office machine copying, on-site and off-site letterpress. He would assure the accomplishment of the best job possible, using the most efficient and least costly process. Additional multilith operators are needed to accomplish in-house reproduction of memoranda, news releases, manual issuances, and other material on a more timely basis. (One of these positions would be assigned to the Astrophysical Observatory in Cambridge.) Currently illustrations used in publications are accomplished by the scientist or technician as part of writing the manuscript, by outside contract, or by an illustrator funded by private Smithsonian resources. An additional illustrator will assist in making publication more meaningful and attractive to the reader.

ARCHIVES - Archival collections are found in many locations throughout the Institution. Principal among these are the central Archives which primarily document the history of the Institution and the history of American science in the 19th and 20th centuries; museum and gallery archives which document objects, specimens, field and laboratory studies, and research and specialized archives. Examples of such archives are the National Anthropological Archives (of the National Museum of Natural History) which contains extensive manuscript and photographic collections principally on North American Indian history and culture and the Archives of American Art which holds the personal and official papers and other documentation of painters, sculptors, critics, collectors, galleries, museums, and art societies. Current holdings in the central Archives amount to almost five million documents from the 1830's to the present. Bureau and office holdings are estimated to contain at least another 10 million documents of a similar time span.

Archival efforts are directed primarily toward collecting essential additional documentation as it may become available; identifying, processing, and preserving materials; reducing large backlogs of unprocessed documents; and increasing the availability of these archival resources to administrative and research staff, students, and visiting scholars. Special efforts in FY 1974 included the following: The central Archives concentrated on the natural history and history and technology archival materials to bring these vast collections under intellectual control and to continue the phased processing of individual documents. This office continued to supervise the microfilming of central accession records. It also completed the development of a computerized index to its processed holdings. The Anthropological Archives developed a pilot program of instruction and on-the-job training at the Archives for 14 American Indians to develop, preserve, and use

historical records of their own tribes and better understand their own culture and heritage. The Archives of American Art acquired over 100 additional collections of papers and served some 1500 visiting researchers (an increase of 25 percent over FY 1973).

Base resources in FY 1974 consisted of about 24 man-years and \$388,000 approximately evenly divided among the central, anthropological, and American Art archives. Personnel costs were about \$332,000 and the balance, \$56,000, was spent on equipment rental, storage and microfilming materials, and specialized data handling equipment, such as a paper-tape punch machine. The FY 1975 base will be about 30 man-years and \$500,000 (\$362,000 of personnel costs and \$138,000 of other costs) reflecting higher pay costs, the management of a new, major (40,000 items) photographic archival collection in the National Collection of Fine Arts, and some programmatic strengthening of other archives activities.

For FY 1976 an increase of 1 man-year and \$13,000 is requested within target to employ an oral historian to interview research, administrative, and other Smithsonian personnel for information supplementing archival documentation. An increase of 4 man-years and \$43,000, also within target, is requested to add a manuscript technician to four branch offices of the Archives of American Art. An additional 1 man-year (an archivist), and \$50,000 are requested above target to begin a 5-year effort to process the records of the National Museum of Natural History. For over a century this museum has been collecting, preserving, studying, and displaying these collections. In the process the staff has created an estimated 6.5 million records and manuscripts which require systematic identification and preservation as a research resource.

PROTECTION - Protection is an ever-present concern for a vast complex such as the Smithsonian. With the increased scope, variety, and value of the exhibits, and the mounting volumes of collections and visitors, the requirements for safeguarding of buildings and other properties also continue to grow. The Smithsonian provides for protection and security of 10 major museums and art galleries and also of the National Zoological Park (NZP), Smithsonian Tropical Research Institute (STRI), the Chesapeake Bay Center for Environmental Studies (CBCES), and various other Smithsonian facilities.

The primary function of protection, in terms of both manpower and budget, is the guarding of the buildings which contain exhibits and are open to the public. The first step in determining manpower and budget requirements for guarding is the designation of "posts." A post may be either one point (e.g. an entrance to a museum) or an area, varying in size, based upon: the use of the area; the value of objects on display; the vulnerability of those objects to damage, theft, and vandalism; and the effective field of vision of the guard assigned to that post. The number of guards required to man one post may vary from one (the post must be manned 8 hours a day, five days a week) to five (the post must be manned 24 hours a day, 7 days a week).

Other functions of protection include fire and safety inspection; safety management; automatic detection for fire and burglary; maintenance of health units; and police operations to prevent or detect violations of regulations of the Institution as well as Federal, state, and local laws.

The FY 1974 base resources consisted of approximately 391 man-years and \$4,711,000. This is an increase over FY 1973 of 42 man-years in the Office of Protection Services. Man-year resources in FY 1974 consisted of 22 administrative, technical, and clerical personnel, 360 guards and policemen, and 9 health and safety personnel at a cost of \$4,353,000. Of these, 90 percent were located at or near the Mall area, 8 percent were at the NZP, and the remaining 2 percent were at STRI and CBCES. Support funds of \$358,000 were spent primarily as follows: rental and maintenance of systems for the automatic detection of burglary and the detection and suppression of fire, \$225,000; purchase and cleaning of uniforms, \$42,000; and contract studies, safety equipment, and health costs, \$45,000.

Protection or security related incidents at or near the Mall continued to rise in FY 1974: 878 in FY 1974, compared to 534 in FY 1973 (an increase of 39 percent). These include 375 misdemeanors and felonious incidents (e.g. vandalism, shoplifting, larceny) and 503 non-criminal incidents requiring guard or police response (e.g. personal injuries, auto and bike accidents).

In FY 1975 anticipated resources for Protection are 415 man-years and \$5,696,000. The increased manpower resources will be used in health and safety (4), and for guard posts that are currently unmanned (20). The costs of the FY 1974 staff in FY 1975 plus generally higher costs in other areas of protection-related expense have eroded the Institution's ability to fill 60 positions authorized in the base.

In FY 1976 additional resources within the OMB target of 14 man-years and \$716,000 are requested, and an increase of 16 man-years and \$422,000 are requested over target. Of high priority in FY 1976 is \$455,000 to fund 40 of the 60 positions that, as stated above, are already in the base but go unfilled because of lack of funds. Fourteen (14) additional guards at a cost of \$200,000 are requested to extend guard protection to the Cooper-Hewitt Museum which is currently closed to the public while the building is undergoing renovation. Funds in the amount of \$61,000 are also requested to establish an alarm systems control center. Although initially limited to the South Mall museums, this system will eventually cover all Smithsonian museums in the District. Various alarm systems in the buildings will be channeled to one center, permitting various emergency situations to be met in the fastest possible time. Ultimately this will relieve the current situation where the Institution is dependent on an outside firm for responding to alarms. This will be more timely and eventually cheaper. Over target, 15 man-years and \$422,000 are requested to extend protection to posts that have been identified but go unfilled for lack of personnel.

BUILDINGS AND FACILITIES MANAGEMENT - This category includes the resources required to operate and maintain a large and growing complex of buildings and facilities centered in Washington, D. C., but with important components in Cambridge, Massachusetts; Mt. Hopkins, Arizona; Panama; New York City; Front Royal, Virginia; Rockville, Maryland; on the Chesapeake Bay; and elsewhere. In FY 1974 a survey was completed of the Smithsonian holdings. The following statistics are in part from this report:

--5 million gross square feet in some 200 buildings including 18 major public museums, art galleries, and zoological exhibition buildings, as well as facilities for research, collections storage and restoration, and administrative and technical services.

--Over 18,000 acres of natural preserve and parkland used for research, public education, and assistance to zoological parks throughout the United States (through the establishment of a conservation facility where endangered species can be bred).

--Over 19 million public visits, 4,200 employees (Federal and other), and several thousand visiting students, scientists, and historians placing unusual demands on facilities, utilities, communications, and custodial operations.

--A physical plant, with buildings ranging in age from "under construction" to about 170 years with the average being over 50 years old, with a replacement cost of perhaps \$330 million, requiring constant attention.

FY 1974 resources consisted of approximately 655 man-years and \$13,300,000. This is an increase over FY 1973 of 41 man-years of effort, most of which were at the National Zoological Park. The 655 man-years in FY 1974 cost \$7,785,000 and consisted of 109 administrative and clerical employees, 301 custodial and labor employees, and 245 mechanical and trades personnel. Of these 38 percent were located in the Office of Plant Services, 20 percent at the National Zoological Park, and the balance, 58 percent (almost all custodial personnel), were assigned directly to the bureaus. FY 1974 saw a major reorganization of the Office of Plant Services. Custodial and labor employees whose daily assignments involved the cleaning and care of specific museum buildings were reassigned from a central office to the director of each museum. This is part of a continuing effort to bring all the resources necessary to have a properly functioning museum under the control of its director. A total of 190 positions and \$2,270,000 were redistributed to seven buildings. The support funds were spent primarily as follows: utilities (steam, electricity, water, gas and heating fuel), \$2,177,000; telephone and telegraph service including Federal Telecommunications System, \$554,000; space rental, \$764,000; penalty mail, \$240,000; service contracts, such as trash removal, elevator maintenance and inspection, uniform cleaning, pest control, carpet cleaning, etc., \$300,000; repairs to motor vehicles (cars, trucks, motor scooters, and boats), \$10,000; contract repairs, \$400,000; mechanical, grounds, and custodial supplies and materials, \$618,000; and equipment, \$452,000.

For FY 1975 the resources estimated to be available for Buildings and Facilities Management total 733 man-years and \$15,009,000. This is an increase of 78 man-years over FY 1974 which will be used to bring the mechanical and custodial forces closer to their required strength, to expand horticulture service to the Hirshhorn Museum and Sculpture Garden, and to provide other miscellaneous increases. Additional funds of \$989,000 are available in other objects over FY 1974. Included in this increase is \$554,000 for rent, \$305,000 for cost increases of supplies and materials, utilities, and contracts as well as additional costs

of an open Hirshhorn Museum and the activities at Front Royal, and \$130,000 for penalty mail. An amount of \$808,000 is available to the Smithsonian in FY 1975 and continuing in FY 1976 for payments required for space and services provided by the General Services Administration (GSA) as required by Public Law 92-313. This includes space controlled directly by the GSA and special purpose space leased by GSA for the Institution. Of this total, about \$554,000 represents "standard level user charges." The balance is for leases plus GSA administrative fees. The Institution will apply these funds (either by continual use of some or all of the space now under GSA control or by carefully selecting alternate space in the Washington, D. C. area or elsewhere) in such a way or ways that will best serve Institutional needs. In this review and selection process, maximum attention will be given to consolidating activities in a single location for more efficient operations.

The base for buildings and facilities management is large but important needs remain to be met to serve adequately a growing but aging plant, active and productive research, exhibition, and education programs, and the huge influx of visitors. For FY 1976, the Institution is seeking additional support funds for buildings and facilities management at two levels: 43 man-years and \$1,131,000 within the target level and 24 man-years and \$536,000 for other priority requirements.

These staffing increases would provide the following: 18 mechanical and trades personnel to provide preventive and corrective maintenance for the expanded number of buildings, facilities, and equipment; 28 custodial and labor employees for public and staff areas; 1 driver and 2 vehicle mechanics to provide for moving and transportation services; 1 telephone operator and 1 mail clerk to meet increased demands on communication facilities; 4 warehouse and shipping personnel to re-warehouse and containerize stored Smithsonian collections; 3 planner-estimators, 1 mechanical engineer, 1 electrical engineer, 1 construction planner, 2 construction representatives, and an architectural engineer technician for facilities planning, construction, and engineering projects; 2 program analysts to analyze and evaluate ongoing maintenance programs; and an equipment clerk to assist in the plan for achieving complete accountability of the custodial and industrial stocks.

The study of plant operations that was completed in the past year recommended that, in addition to assigning custodial and labor personnel directly to the museums, a small number of trade and craft personnel also be assigned. In the past when a mechanic or craft person was needed for a short-term assignment he was diverted from regular, scheduled duties. This has resulted in a backlog of maintenance jobs. In an aging establishment, with many old buildings, regular maintenance is critical. Staff assigned directly to the museum directors will handle the small, non-scheduled jobs of less than 8 hours work, thus freeing the Office of Plant Services staff to perform scheduled maintenance on a timely basis. Positions for trade and craft personnel that are not currently being filled because of lack of funds will contribute to this effort if the dollar increase (\$144,000) for this purpose is approved. Mechanics are also required in the research areas to keep refrigeration, air conditioning, and other systems operational. Additional custodial employees are needed to bring all the museums up to a staffing level of 80 percent of what studies indicate they

should have for their size, complexity, and public use. In addition custodial employees are required for the maintenance of research laboratories located away from Washington and for the Cooper-Hewitt Museum which will open in FY 1976 to the public.

With the establishment of the Office of Facilities Planning and Engineering Service (OFPES) in mid-FY 1974, the Institution has been in the process of developing a professional/technical organization to provide the necessary support for planning, design, engineering, and construction management requirements. Approximately three hundred requests are processed annually, ranging from architectural/engineering consultation to the full planning, engineering, and construction management cycle. Projects include: major repair and maintenance; restoration and renovation; improvements and alterations; site development; new construction; and long range planning.

With this establishment of a professionalized planning, development, and management approach to construction, the need for efficient cost estimating becomes vital. To enhance the Institution's ability to effectively project both short and long-term construction/facility costs for a large volume of projects, three cost estimators, experienced with the full spectrum of an engineering, design, and construction operation, are required. In addition, the services of two technicians are required to support the preliminary design effort. One position (an architectural technician) is required to provide drafting services for the current preliminary design requirements and one position (a planner) is required to address the long range design and development needs of the Institution.

Upon receipt of approved and funded projects the engineering and design element prepares final technical data and develops contract specifications. In addition, the unit provides professional expertise for a wide range of technical matters, including but not limited to drafting, electrical, mechanical, structural and civil engineering disciplines. With the influx of projects of increasing magnitude and complexity, an additional electrical engineer and a mechanical engineer are required. And finally, two full-time professional construction engineers are required to perform the necessary contract supervision duties related to construction contracts. The continuous construction programs performed by contract, require on-site surveillance to ensure that work is accomplished as stipulated in engineering drawings and that specifications, contract costs, and time schedules are maintained as planned.

An amount of \$406,000 to fund expenses in other objects is also requested. This includes \$100,000 for moving costs to consolidate facilities and storage to be accomplished on a phased basis over several years; \$144,000 for mechanical, craft and custodial supplies, materials, service contracts and equipment; \$78,000 for penalty mail; and \$52,000 for specialized equipment to modernize the central mail room and warehouse operations. The balance of \$32,000 would be used for uniform purchase and cleaning, additional communications and utility use, and other minor expenses.

GENERAL ADMINISTRATION - General Administration includes the Offices of the Secretary and the Assistant Secretaries, and some 50 Bureau and Office directors and their immediate staffs. Also included under this

heading are the staff specialists who are essential to an operation as large and complex as the Smithsonian; such as accountants, attorneys, auditors, budget personnel, management analysts, personnel and equal opportunity specialists, procurement and supply personnel, and travel assistants. The personnel in these areas provide guidance and assistance to the Secretary and his principal assistants and to the Bureaus and Offices. They are responsible for the overall management, administration, control, and review of over 50 major program and support activities located in many parts of the world; for solution of complex legal problems, including those arising from the operations of a private, university-like, charitable corporation, as well as those common to Government organizations; for personnel administration, including training, counseling, and upward mobility for some 3,000 employees; and for about 10,000 annual procurement transactions; and for budgeting, expenditure control, and auditing of close to \$100 million of operating, special project, and construction funds from all sources.

In FY 1974 base resources consisted of 339 man-years and \$7,288,000. Included in the 339 man-years are 47 administrative assistants and officers, 5 attorneys, 32 man-years in financial management, 32 man-years in personnel administration including equal opportunity, 8 man-years in management analysis including forms control, 3 man-years in travel services, 7 man-years in auditing, 17 man-years in supply services, 50 man-years in executive management or advisory assignments, and 138 in clerical and other supportive roles.

Other object spending of \$1,103,000 included as major items \$141,000 for the purchase of office supplies and materials stocked by the central supply service; \$50,000 for expenses of the proposed review and grant award and other advisory procedures of the Foreign Currency Advisory Boards, the Smithsonian Council (which meets twice a year), the Research Awards Advisory Group, and the National Museum Act Advisory Board; \$50,000 for consultant studies; \$50,000 for employee training; and \$25,000 for Institutional dues to museum and conservation societies. The balance was used for specialized supplies and materials, books and equipment for use in the offices, travel, outside legal counsel, and the rental of copying equipment.

In FY 1975, 367 man-years and \$7,815,000 will be devoted to General Administration. An amount of \$6,849,000 will go for salaries and benefits and the balance, \$966,000, will go for other object spending similar to last year.

In FY 1976 within the target of OMB, 20 additional positions and \$499,000 are requested for general administration and an additional 6 positions and \$126,000 are being sought above target. These additional personnel will provide assistance in purchasing (1 man-year), financial management (3 man-years), personnel (2 man-years), auditing (1 man-year), upward mobility and equal opportunity (4 man-years), and administrative and clerical staff at the bureau level (15 man-years). Funds are also being sought to provide for additional central supplies and to meet the costs of inflation in this area.

BICENTENNIAL COMMITMENTS

This section of the budget request includes the National Air and Space Museum and the Special American Revolution Bicentennial Program. Budget requirements are shown in the following table by program and support category. Descriptions of the two component activities are in the next sections.

(\$1,000s)

	Fiscal Years							
					1976			
	1974		1975 est.		Increase		Total	
	MY	\$	MY	\$	MY	\$	MY	\$
<u>Program</u>								
Research	34	596	45	804	-	78	45	882
Collections Management	29	366	37	466	-	-	37	466
Exhibitions	69	2888	106	5394	7	1261	113	6655
Education & Orientation	7	251	9	353	5	214	14	567
Total	139	4101	197	7017	12	1553	209	8570
<u>Support</u>								
Libraries	1	17	1	17	2	78	3	95
ADP	-	8	-	9	-	-	-	9
Printing & Reproduction	-	30	1	454	-	184	1	638
Protection	-	-	8	102	60	775	68	877
Buildings & Facilities								
Management	-	34	6	193	74	1787	80	1980
General Administration	12	258	13	265	1	10	14	275
Total	13	347	29	1040	137	2834	166	3874
Grand Total	152	4448	226	8057	149	4387	375	12444

Special American Revolution Bicentennial Program

(\$1,000s)

	Fiscal Years			
	1974		1976	
			Increase	Total
	<u>MY/1</u>	<u>\$</u>	<u>MY/1</u>	<u>\$</u>
<u>Program</u>				
<u>Exhibitions in Washington</u>				
A Nation of Nations	700	1060	(520)	540
Ecology 200	128	335	(335)	-
Centennial 1876	136	340	20	360
Artist and the American Scene	21	37	28	65
Design in the City } The Americas }	31	78	21	99
Revolutionary Period Exhibitions	144	150	-	150
City with a Plan	-	50	-	50
	<u>1160</u>	<u>2050</u>	<u>(786)</u>	<u>1264</u>
<u>Traveling Exhibitions</u>				
Information and Exhibit Systems	134	337	43	380
Object-oriented Exhibitions	12	150	50	200
Exhibits Design and Production Laboratory	34	85	(35)	50
	<u>180</u>	<u>572</u>	<u>58</u>	<u>630</u>
<u>Special Project</u>				
Festival of American Folklife	<u>162</u>	<u>500</u>	<u>500</u>	<u>1000</u>
Total Exhibitions	1502	3122	(228)	2894
<u>Major Scholarly Projects</u>				
Inventory of American Paintings				
Before 1914	77	86	33	119
Bibliography of American Art	50	60	(15)	45
Encyclopedia of North American Indians	30	300	-	300
Sternwheeler Bertrand	-	60	15	75
1976 International Bicentennial Conference	-	-	60	60
Total Research	157	506	93	599

	Fiscal Years							
					1976			
	1974		1975 est		Increase		Total	
	MY/1	\$	MY/1	\$	MY/1	\$	MY/1	\$
Visitor Orientation and Services for the Bicentennial Year	-		144		252		396	
Total Education & Orientation	-		144		252		396	
Total Program	33	1659	72	3772	0	117	72	3889
<u>Support</u>								
Protection	-	-	-	-	24	358	24	358
Buildings & Facilities Management	-	-	-	-	13	240	13	240
General Administration	2	69	2	55	-	-	2	55
Total Support	2	69	2	55	37	598	39	653
Grand Total	35	1728	74	3827	37	715	111	4542

/1 Man-years not allocated by program category.

Program - In less than one year, the official observance of America's 200th anniversary begins. For the Smithsonian Institution, the Bicentennial period will see the realization of a major commitment and effort to use its scholarly resources and the National Collections for a thoughtful reexamination of where we've been and how we arrived at today.

Five years of intensive planning and research and more than \$7,000,000 will have been invested in the development of the Smithsonian's Bicentennial program by FY 1976. The program, built around the single theme--The American Experience--includes twenty-two separate projects involving thirteen bureaus of the Institution. The projects, exclusive of the new National Air and Space Museum discussed separately, are divided into four groups: Exhibitions in Washington, Traveling Exhibitions, Special Projects, and Major Scholarly Projects. A complete Program Schedule follows on page

For FY 1976, of the total program budget request of 72 man-years and \$3,889,000 (an increase of \$117,000 over FY 1975), an amount of \$1,264,000 is required to complete the final construction and installation of the Exhibitions in Washington. Eleven special Bicentennial exhibitions, ranging in subject matter from the peopling of America and their arts and sciences to the impact of those people on the land through the use of its resources, both by design and otherwise, have been planned. The first exhibition, "In the Minds and the Hearts of the People: Prologue to Revolution," opened at the National Portrait Gallery in June 1974, and another on the Two Continental Congresses will open in May 1975. The remaining ten exhibitions will all open in FY 1976, and each of the National Museums will have a Bicentennial exhibition, including the Freer Gallery of Art.

Over the next three years, the Smithsonian Institution will create for the Bicentennial and circulate throughout the country more than one hundred Traveling Exhibitions. Some will be developed out of Smithsonian Bicentennial exhibitions in Washington; others will relate to the history of America through its material culture--its arts, sciences, and technology; and still others will relate to the culture and the perspectives of minority groups. Funding of \$630,000 is requested for the continuing development of these projects.

During the summer of 1976, the Festival of American Folklife will take place on the Mall. Co-sponsored by the Smithsonian and the National Park Service, the Festival is a living museum of American folk culture, detailing the expressions in music, dance, and crafts of America's diverse, ethnic peoples; as well as the expressions of Native Americans, the distinctive styles of Americans in various regions, and the traditions of working Americans. To complete the final research phases and development of this Special Project, as well as support experimental presentations in the summer of 1975 and production in 1976, an appropriation of \$1,000,000 is requested.

For five Major Scholarly Projects which will make a permanent contribution to the knowledge about America and its past, as well as have implications both nationally and internationally, an appropriation of \$599,000 is needed. The funding will support the final research phases of the Bibliography of American Art and the Inventory of American Paintings before 1914, print the second third of the twenty-volume Encyclopedia of North American Indians, and help develop the Bertrand project and the International Bicentennial Conference.

Finally, an appropriation of \$396,000 is requested for Visitor Orientation and Services to support the printing of Smithsonian information brochures and museum floor plan guides provided free of charge to visitors, and additional design services needed in the production of ten catalogues relating to the Smithsonian's Bicentennial Exhibitions.

Support - Additional resources of 37 man-years and \$598,000 for a total of 39 man-years and \$653,000 will be required to give adequate protection, buildings and facilities management, and general administration support to special Bicentennial Program activities.

As part of its contribution to the commemoration, the Institution plans to keep all its museums located on the Mall open until 10 PM and the exhibit buildings and grounds of the National Zoological Park open until 9 PM each day during the period April 1-September 6, 1976. On the Mall, this will add the Freer Gallery of Art, the original Smithsonian Institution Building, and the Hirshhorn Museum and Sculpture Garden to the buildings usually open in the evening during the spring and summer months. This plan will afford additional opportunity for late evening visits to the many more millions of visitors to the Nation's Capital.

For protection requirements for extended buildings and grounds hours, as well as for augmented protection and related services for larger numbers of visitors during normal hours, an additional 24 man-years of guard, police, and first-aid staff will be required at a cost of \$243,000 including necessary services,

supplies, and equipment. Furthermore, the expected large increase in visitation makes it imperative to install visitor counting equipment at building entrances. This equipment will help provide for the safety and pleasure of visitors by giving information on which to base decisions to close buildings temporarily if capacity is exceeded. The cost of such equipment for Mall buildings is \$115,000.

Additional custodial, animal keeper, mechanic, communication, and transportation personnel will be needed for longer operating hours and the larger number of visitors. This is a requirement for 8 man-years and \$90,000.

In addition to special exhibitions for the Bicentennial celebration, horticultural improvements to buildings and grounds will heighten visitors' pleasure. Special projects being planned include a conservatory in the rotunda of the restored Arts and Industries Building, a Victorian garden south of the Smithsonian Institution Building, plantings forming the Smithsonian logo around the Joseph Henry statue on the Mall, and the planting around the History and Technology Building of the State flower and tree of each of the 50 states. This program will require 5 man-years and \$150,000 including funds for trees, plants, and other gardening materials.

All of these program and support funds, except those of the horticulture program, are of a temporary nature and will not remain in the base after the Bicentennial period.

The American Experience

PROGRAM SCHEDULE

June	1974	In the Minds and Hearts of the People, 1760-1774 (National Portrait Gallery)
October	1974	The Hirshhorn Museum and Sculpture Garden
Winter	1974	Traveling Exhibitions and Programs -- continuing (Smithsonian Institution Traveling Exhibition Service)
May	1975	The Continental Congress -- working title (National Portrait Gallery)
July	1975	The American Experience, Portfolio Series
Summer	1975	Anacostia Exhibits Design and Production Laboratory -- continuing (Anacostia Neighborhood Museum)
November	1975	Our Changing Land -- formerly Ecology 200 (National Museum of Natural History)
December	1975	Arts of Asia (Freer Gallery of Art)
January	1976	A Nation of Nations (National Museum of History and Technology)
February	1976	Design in the City and The Americas (Renwick Gallery)
March	1976	America After the Declaration of Independence -- working title (National Portrait Gallery)
April	1976	The Artist and the American Scene (National Collection of Fine Arts)
May	1976	Kin and Communities: The Peopling of America Symposium (Office of Seminars)
May	1976	Centennial-1876 (Arts and Industries Building)
June	1976	Festival of American Folklife (Division of Performing Arts and National Park Service)
July	1976	National Air and Space Museum
Summer	1976	Directory: Inventory of American Paintings Before 1914 (National Collection of Fine Arts)
September	1976	International Bicentennial Conference (American Studies Foundation, American Council of Learned Societies, and Smithsonian Institution)
Fall	1976	Encyclopedia of North American Indians (Center for the Study of Man)
Winter	1977	Bibliography of American Art (Archives of American Art)
Winter	1977	Sternwheeler Bertrand (National Museum of History and Technology)

National Air and Space Museum

(\$1,000s)

	Fiscal Years							
	1974				1975 est			
	MY	\$	MY	\$	MY	\$	MY	\$
<u>Program</u>								
Research	29	479	34	607	-	-	34	607
Collections Management	29	366	37	466	-	-	37	466
Exhibitions	42	1449	47	2322	7	1489	54	3811
Education and Orientation	7	208	9	303	5	131	14	434
Total	107	2502	127	3698	12	1620	139	5318
<u>Support</u>								
Libraries	1	17 ^{/1}	1	17 ^{/1}	2	78	3	95
Printing and Reproduction	-	-	-	10	-	-	-	10
Protection	-	-	8	102	36	417	44	519
Buildings & Facilities Management	-	-	6	193	61	1547	67	1740
General Administration	9	201	10	210	1	10	11	220
Total	10	218	25	532	100	2052	125	2584
Grand Total	117	2720	152	4230	112	3672	264	7902

^{/1} Represents NASM resources. An additional 5 man-years and \$100,000 (personnel costs and acquisitions) are provided from the Smithsonian Institution Libraries budget.

Program - The principal efforts of the National Air and Space Museum (NASM) will continue to be directed towards the opening of the new museum building on July 4, 1976. This building will embody 25 major exhibition galleries (see list on page 39) and two large presentation centers. Total exhibit and presentations space will be approximately 250,000 square feet.

The new NASM building is expected to be a major feature of the Bicentennial celebration, dedicated to communicating the history, science, and technology of flight in ways understandable to the public, and to recognizing and celebrating the leadership role that America has played in the advance of air and space achievements.

The FY 1976 program budget request is for 139 man-years and \$5,318,000 (an increase of 12 man-years and \$1,620,000 over FY 1975). In that year, major program emphasis will be placed on: the production and installation of major exhibits; the planning and production of programs for the 70-foot domed Spacearium and the 400-seat

Theater; and the installation and shakedown of presentation and control equipment for all these facilities. The restoration, renovation, and installation of the full-sized historic air and space craft now undergoing refurbishment at the Silver Hill, Maryland, Facility will continue to provide the artifacts needed for the new exhibits. Of the approximately 60 aircraft that are planned to be exhibited, 35 are now ready with the remaining 25 in various stages of restoration. The percent completion for the various space artifacts planned to be exhibited is approximately the same. A special effort is planned to finish the restoration of all of these and to move the various artifacts into the new building.

The goal for opening day is to have quality core exhibits in approximately 50 percent of the available space with well-displayed objects in the remainder of the museum. To date, five of the core exhibits have been completed and tested in the Arts and Industries Building. These prototype halls have featured advanced presentation techniques and have been extremely well received by the public. A major objective of this prototype exhibit program has already been met, that is, the development of a superior exhibits design and production staff and the construction of a production facility at Silver Hill. To meet the opening day exhibition goal, 7 additional man-years of exhibits personnel (\$66,000) and a further \$1,423,000 of program funding are required. The additional staff (cabinet-maker, electronics technicians, servo-mechanism repairmen, and slide and motion picture repairmen) would be responsible for the installation and maintenance of electro-mechanical and audio-visual equipment used in exhibits. The increment of program funds would be used primarily for the contract production of core exhibits. A deliberate effort has been made to avoid expanding NASM staff beyond the operational needs of the new building by contracting for the major exhibits development phase. Program funds also will be applied to the completion of "Benefits from Flight," a major exhibition funded in part in FY 1974 and FY 1975.

Successful planetarium shows have been running in the 30-foot domed Experimentarium (in the old Air and Space Building) which was constructed to test programs and equipment and to begin to develop a staff for the new Spacearium. All shows and equipment must be revised for incorporation into the 70-foot domed Spacearium with its more sophisticated, computerized star projector and supporting audio-visual equipment. A first film "treatment" for the Theater has been written and is now awaiting production. Projection equipment for the giant screen and necessary support systems must be purchased, installed, and tested. An additional 5 man-years (education assistant, Spacearium assistants, theater equipment technician, and a clerk-typist) at a cost of \$56,000 and \$75,000 for equipment and other expenses are required in FY 1976.

Support - The opening of the NASM will result in substantial increased use of its collection, archival, and library resources. In anticipation of this use, a NASM bureau library was staffed in FY 1972. Approximately 12,000 titles in the NASM collection are not catalogued, however, and therefore difficult to use. A study indicates that about 4,000 of the uncatalogued titles can be found in the Ohio College Library Center data base which the Smithsonian uses for on-line cataloguing. The remaining 8,000 titles are unique, however, and will require original cataloguing. Present staff cannot perform this work in time to meet the Museum's opening. Two additional man-years of library technical staff (\$18,000) and \$60,000 for contract cataloguing are required.

Since the Museum's opening comes at the beginning of FY 1977, it is essential to have on board and trained all support positions needed for protecting, cleaning, operating, and maintaining the building by the close of FY 1976. The FY 1975 appropriation contains only the partial staffing needed for the building during the initial occupancy phase beginning in April 1975. The FY 1976 direct protection and building support budget for the NASM is 111 man-years and \$2,259,000 (an increase of 97 man-years and \$1,964,000 over FY 1975). The increased resources will provide the following:

- 55 additional guard, health, and supervisory personnel for 1/4 of the year (14 man-years, \$225,000) with \$90,000 for uniforms, health unit furniture, and other equipment and supplies and \$102,000 to annualize (22 man-years) the 30 positions (8 man-years) approved in FY 1975 for a total increase of \$417,000.
- 57 additional custodial and supervisory personnel for 1/4 of the year (14 man-years, \$153,000) with \$45,000 for service contracts, supplies, and equipment and \$168,000 to annualize (19 man-years) the 25 positions (6 man-years) approved in FY 1975 for a total increase of \$366,000.
- 23 additional mechanic, telephone operator, motor vehicle operator, mail-messenger, and planner-estimator personnel for the full-year to operate building systems and assist with opening preparations (\$265,000) with \$24,000 for supplies and equipment and \$54,000 to annualize (5 man-years) the six positions (1 man-year) approved in FY 1975 for a total of \$343,000.
- Utility and communications funds (\$838,000) to cover the estimated cost of electricity, steam, gas, and telephone services.

One additional secretary (\$10,000) is required for general administration of the NASM.

National Air and Space Museum

Major Exhibition Halls and Presentation Centers

SPACE HALL	EARTH FLIGHT ENVIRONMENT
ROCKETRY AND SPACE FLIGHT	SPACE FLIGHT ENVIRONMENT
SATELLITES	TROPHY HALL
LIFE IN THE UNIVERSE*	BENEFITS FROM FLIGHT
APOLLO TO THE MOON	SEA-AIR OPERATIONS
VERTICAL FLIGHT	SPACEARIUM
AIR TRANSPORTATION	THEATER
GENERAL AVIATION	FLIGHT TECHNOLOGY
EXHIBITION FLIGHT*	THE X AIRPLANES
AIR TRAFFIC CONTROL*	WORLD WAR I AVIATION*
EARLIEST FLIGHT	WORLD WAR II AVIATION
MILESTONES OF FLIGHT	BALLOONS AND AIRSHIPS*
INDEX EXHIBIT	SPECIAL EXHIBITS HALL
	FLIGHT AND THE ARTS*

*All or portions of these exhibitions have been opened in FY 1974 or FY 1975.

UNCONTROLLABLE INCREASES

The following additional funds are requested for costs that are beyond the control of the Smithsonian Institution. These costs result from increases in shipping and utility rates and from pay raises attributable to public laws and prevailing practices. A total of \$2,620,000 is required for the following increased costs.

Necessary Pay and Related Benefits.....	\$2,010,000
Utility Rate Increases.....	500,000
Workmen's Compensation.....	85,000
Shipping Rate Increases.....	25,000

NECESSARY PAY AND RELATED BENEFITS - An increase of \$2,010,000 is required for personnel compensation and personnel benefits for the projected higher costs in FY 1976 of FY 1975 staff. These increases accrue to the employees primarily because of actions of legislated pay systems that are beyond the control of the Smithsonian Institution. If the Institution is required to meet these expenditures out of existing funds one of two things happens. First, for about every \$12,000 that goes to these costs from funds already in salaries and benefits one man-year of effort is lost. Second, if funds are diverted from other objects of expense a serious imbalance will occur between salaries and other objects of expense.

(1) Within Grade Salary Advancements (\$800,000). Within grade salary advancements are calculated on an individual basis, position-by-position. In any one fiscal year the costs of periodic steps are substantial. There is not only the additional expense of annualizing the costs of periodic steps granted in the previous year, but also the additional costs of new periodic increases granted. In FY 1975 it is estimated that 1,776 employees will be granted periodic steps. In FY 1976 not only will the Institution have to annualize these costs (\$424,000) but also the costs of 1,888 new periodic steps (\$376,000). Offsets are made to the costs for turnover and promotions.

General Schedule (\$605,000): The Government Employees Salary Reform Act of 1964, Public Law 88-426, provides for General Schedule employees to receive increases in pay at periodic intervals. Employees in 17 of the 18 grades are eligible for these step increases. General Schedule employees in Grades 1-15 have ten steps in each grade while grade 16 has 9 steps and grade 17 has 5 steps. The waiting period between steps varies from one to three years--through step 4 the waiting period is one year; through step 7, two years; and through step 10, three years. Such an increase must be granted unless an employee is not performing at an acceptable level of competence. A negligible number of within grades are withheld each year. Provisions in the same law provide for outstanding performance by an employee to be recognized by a "quality step". An average of 150 employees are so designated each year. The average grade for General Schedule employees at the Smithsonian is 8.3. The annual cost of a within grade in General Schedule grade 8 is currently \$400 including benefits. This request averages \$229. There are over 2,000 General Schedule positions with 1,485 scheduled to receive a new within grade in FY 1976.

Wage (\$195,000): Periodic increases in pay for Wage employees are accorded by law and prevailing practices. The majority of the Smithsonian Institution's Wage employees are located in the Washington metropolitan area, but there are also employees subject to local wage changes in Arizona, Maryland, New York, and Panama. The following material is from the Washington Wage System but similar patterns prevail elsewhere. The Wage employees have three pay scales--one for Wage Grade employees, one for Wage Leaders, and one for Wage Supervisors. The Wage Grade and Wage Leader scales each have fifteen grades with five steps in each grade, and the Wage Supervisor scale has nineteen grades with five steps in each grade. The waiting period between steps 1 and 2 is six months, between steps 2 and 3, one and one-half years. There is a two year waiting period between the balance of the steps. The average cost of a step in the Wage request is \$225. There are approximately 750 employees in Wage positions, of whom 403 will receive new within grades in FY 1976.

(2) Extra Work Day (\$160,000). The annual pay scale in effect in the Federal government is based on 260 paid work days (including holidays). FY 1975 will have 261 paid work days. Additional funding for this day has been appropriated. FY 1976 will have 262 paid work days (which includes two extra work days, one of which is February 29); therefore, \$160,000 is requested to meet payroll needs for one additional day.

(3) Annualizing General Schedule Increases (\$600,000). In recent years General Schedule employees have received a pay raise each October. This raise has been 5 to 5.5 percent. Funds for the cost in the current fiscal year (FY 1975) will be sought as a supplemental. Funds to annualize this raise from July 1 through October 10, 1975, are being sought here. The U.S. Civil Service Commission and the Office of Management and Budget proposed to President Ford on August 19, 1974, that the raise be 5.5 percent. This request is based on that amount. Approximately 2,200 employees are in this pay system.

(4) Annualizing the Annual Wage Increase (\$320,000). Prevailing practices call for the Wage pay scales to be reviewed by a Wage Fixing Authority in each geographic area to see how the wages paid by the U.S. Government compare to wages paid similar employees in the same area. In the Washington area this has resulted in the Wage employees receiving a pay raise in about October of each year. In recent years this raise has been 5 to 5.5 percent. Although definite word on the amount of increase in FY 1975 will not be made public for several months, the requested increase has anticipated a raise of 10 percent. The higher percent is based on early word that since the Wage increase in October 1973 was held down, a major increase will be granted this October to provide equality.

(5) Annualizing Manual Scale Increases (\$15,000). Manual employees wage scales at the Smithsonian Tropical Research Institute are guided by the same principles as the Washington area system. An amount of \$10,000 is sought to fund costs in FY 1976 of a pay raise granted these employees each July. Fourteen employees are affected by this raise. In addition, \$4,000 is requested to meet the costs of the new minimum wage established for the Canal Zone in April, 1974. Ten employees were affected by this raise. In May, 1974, the employees in manual step 10 and above also received a raise. An amount of \$1,000 is requested to meet this higher cost. Two employees were affected by this raise.

(6) Increases for Miscellaneous Benefits (\$15,000). The employees working at the Smithsonian Tropical Research Institute are eligible for a variety of benefits because of their location outside the United States. United States employees receive a 15 percent tropical differential in the Canal Zone. All employees can send their children to schools in the Canal Zone. (Currently there are 19 children in school.) The cost of running the school system is pro-rated back to the agencies whose children are currently in the system; and, since no public transportation is available, a charge is also made for school busing. All employees (60) are also eligible for medical attention. Due to inflation all of these expenses have risen to the point at which they can no longer be absorbed.

UTILITY RATE INCREASES - In recent months the cost of electricity and steam has risen sharply as manufacturers have been allowed to pass on to the customer the large increases in the cost of raw materials. In late FY 1974 and early FY 1975, the Smithsonian inaugurated a number of energy-saving programs resulting in reduced energy usage. In FY 1973, 56,547,250 kilowatt hours were used by the Smithsonian at a cost of \$911,577. In FY 1974, this was reduced to 53,259,858, but the cost was \$1,183,161. This was a 5.8 reduction in use between FY 1973 and FY 1974. In FY 1973, 247,428,990 pounds of steam were used, while in FY 1974 only 224,466,000 were used. But here again the price went from \$644,581 to \$666,118. Thus, in spite of these energy-saving efforts, utility costs have continued to rise. A request is made for \$486,000 to help meet these increased costs in FY 1976.

WORKMEN'S COMPENSATION - Section 8147(b) of Title 5, United States Code, provides for payments to be made to employees for injuries and to their families in case of death. These payments are made by the U.S. Department of Labor's Office of Employees' Compensation. They bill the agency in August of the next fiscal year. The bills are payable the following July. The Institution has placed emphasis on a safety program. One of the functions of the Office of Protection Services is to make and enforce safety regulations in the Institution. Even though various prevention activities have taken place, there are more employees and the number of cases in FY 1974 was 78 compared to 66 in FY 1973. The bill for FY 1974 (payable in FY 1976) is \$182,773. With the \$98,000 that is in the base for FY 1975, an additional \$53,000 is needed to finance this bill.

SHIPPING RATE INCREASES - The International Exchange Service is the official exchange bureau in the United States for international exchange of literary, scientific, and cultural publications. In addition, 14 Stat. 573, as amended, provides that the exchange of the United States Government publications shall be made through the Smithsonian. The major cost to this program, besides salaries, is shipping charges. Here, again, the rates have gone up drastically, especially for ocean freight and shipping to the docks. In FY 1973, 544,073 pounds were shipped at a cost of \$54,221 while in FY 1974, \$513,800 pounds were shipped at a cost of \$60,228, and these rates continue to increase. As an example, to send a 40 cubic foot crate to Japan used to cost \$85.00, now it costs \$91.50. In past years, improved packing methods had alleviated the need to increase the funds available for shipping; but now, with the recent increased costs, additional funds in the amount of \$20,000 are being sought to meet this need.

SMITHSONIAN SCIENCE INFORMATION EXCHANGE

Total Operating Budget

	<u>FY 1974</u>	<u>FY 1975</u>	<u>FY 1976</u>
Input Operations (Federal Support)	\$ 1,695,000	\$ 1,755,000	\$ 1,855,000
Output Services (User Funded)	<u>430,000</u>	<u>590,000</u>	<u>695,000</u>
Total	\$ 2,125,000	\$ 2,345,000	\$ 2,550,000

The Smithsonian Science Information Exchange (SSIE) serves all users as the only national source of information on research in progress in all areas of science, drawn from all major sources of research support. Each year new information on more than 100,000 ongoing research projects is incorporated into its computer data bank. Total data bank size averages 180,000 projects. Federal dollar support for SSIE input operations allows the Exchange to perform the tasks necessary to make possible rapid and efficient retrieval of information in response to the needs of the Nation's research community. It covers the efforts required to assure a steady flow of information into the Exchange, the registration and entry of the data into SSIE's data base, and the interdisciplinary, hierarchical classification of research project information necessary for the Exchange to meet a broad range of demands for information services. In FY 1974 the SSIE provided more than 500,000 summaries of research in progress and provided substantial additional information in specialized catalogues and other information sources. User revenue continues to grow.

The effect of these demands on SSIE input operations is most clearly expressed in terms of the ongoing research information requirements of programs of high national priority such as the National Cancer Plan and Project Independence. More comprehensive coverage, more timely data, and more rapid input processing are input improvements seen as necessary precursors to the effective application of SSIE resources to the problems of program implementation and management. Operation of a Current Cancer Research Project Analysis Center by SSIE under the International Cancer Research Data Base program is one example of a requirement of this kind. SSIE efforts to compile for the State Department information on international energy research in progress in order to support an evaluation of alternative policies for international cooperation is another.

In each of these cases, in spite of agency support for the services sought, demands on SSIE input operations are increasing. Moreover, under Federal Revenue Sharing, more and more resources provided to state and local governments are being directed toward research programs which address problems local in scope but common in nature. Within these programs, the avoidance of unwarranted duplication of research, and the sharing of information and expertise, requires the availability of comprehensive ongoing research information from a central source.

Actions taken by the Exchange to improve input into its data base to make it as current for searching as possible include: obtaining more timely input from contributing organizations; obtaining more input on magnetic tape instead of hard copy; developing machine-aided indexing; improving indices; using WAE personnel to cope with backlogs; and selective strengthening of the professional staff.

In order to be in a position to continue to support effectively programs of high national concern, SSIE is requesting Federal funding for FY 1976 in the amount of \$1,855,000. The increase of \$100,000 over SSIE's FY 1975 appropriation is being sought by the Exchange in order that it might improve the comprehensiveness and timeliness of its coverage in areas of national interest and embark upon an effort to serve better the research information needs of states and local governments. Of the total, \$70,000 is requested within the OMB target level allowance to support a high priority effort by SSIE to improve selectively input and processing time in critical subject areas. Funds will be applied primarily to the further development of a machine-aided indexing to reduce backlog and to allow the professional staff to concentrate on conceptual indexing and index development. The balance of \$30,000 is requested to allow the Exchange to begin an effort to work with organizations such as the National Legislative Conference, the National Governor's Conference, and with state and local governments to encourage and provide for the registration of new input with SSIE. Mechanisms and procedures will be developed for the collection, input, and delivery of information between the Exchange and these organizations.

MUSEUM PROGRAMS AND RELATED RESEARCH
(SPECIAL FOREIGN CURRENCY PROGRAM)

1974 Appropriation.....\$4,500,000
 1975 Appropriation.....\$2,000,000
 1976 Estimate:
 Target.....\$2,000,000
 Increment.....\$1,500,000

 Total.....\$3,500,000

Commitment of Funds by Program Area

	FY 1966-74 Cumulative	FY 1975 Estimate	FY 1976 Estimate Ceiling	Program Requirement
Archeology and Related Disciplines	\$13,708,051 ^{/1}	\$1,649,000 ^{/1}	\$1,275,000 ^{/1}	\$1,744,000 ^{/1}
Systematic and Environmental Biology	8,607,474	1,348,000	539,000	1,138,000
Astrophysics and Earth Sciences	1,212,949	209,000	82,000	195,000
Museum Programs	352,873	154,000	77,000	381,000
Grant Administration	<u>211,598</u>	<u>40,000</u>	<u>27,000</u>	<u>42,000</u>
Total	\$24,092,945	\$3,400,000 ^{/2}	\$2,000,000	\$3,500,000

^{/1} Includes payment to UNESCO of \$1,000,000 equivalent in excess Egyptian pounds for the International Campaign to Preserve the Nubian monuments.

^{/2} FY 1975 estimated obligations will employ the new appropriation of \$2,000,000 equivalent plus an estimated unobligated balance of \$1,400,000 from prior years' appropriations.

Since FY 1966, the Smithsonian Foreign Currency Program has awarded over \$24,000,000 equivalent in "excess" foreign currencies to 71 United States institutions of higher learning in 32 states and the District of Columbia. These grants, which have benefitted more than 220 museums, universities, and research institutions, have resulted in more than 452 publications and important additions to 28 research collections. Moreover, more than 120 foreign institutions in ten countries benefitted through collaboration with the United States grantee. This assistance has included funds, equipment, advanced training for scholars, and opportunities to utilize research results in meeting national priorities.

In FY 1974, more than 400 American scholars participated in programs supported by these grants. In FY 1974 also, 291 host country scholars participated in this collaboration.

Outstanding research results include:

--Revision of one of the basic studies of tropical plants (Trimen's Handbook of the Flora of Ceylon) upon which the names of many of the world's tropical plants is based. The revision will improve the usefulness of studies of all tropical ecosystems.

--Study of disappearing traditional industries, technologies, and crafts in Pakistan. The study will provide a basis for adapting some of them to modern marketing conditions.

--Study of the expansion of the Sahara Desert into heretofore productive land in southern Tunisia. The study should provide a basis for combatting this loss of agricultural land.

--Successful application of techniques of detecting "cosmic rays" which reach the earth's surface to the search for hidden chambers in the Pyramids in Egypt.

Special Foreign Currency Program appropriations are an advantageous and unique source of research monies. They do not require new appropriations of tax dollars and do not add significantly to the President's budget total because the Commodity Credit Corporation reduces its appropriation by an amount equal to the amount of foreign currencies expended. Furthermore, delay in the use of the "excess" accounts means continuing losses to the United States Treasury as these accounts lose value through inflation and devaluation.

The Institution is submitting estimates at two levels for the Special Foreign Currency Program. The first level at \$2,000,000 equivalent presumes one fixed ceiling for all Smithsonian appropriations; the second at \$3,500,000 equivalent accurately states the Institution's best estimate of Program requirements for FY 1976. Approval of the \$3,500,000 equivalent level is requested because it is essential to support research determined by the Institution's scholarly advisory councils to be of the highest priority and because Special Foreign Currency Program Appropriation requests have traditionally been considered separately from agency budget ceilings since these appropriations are offset elsewhere in the President's budget. Both levels include \$1,000,000 equivalent for the third of four payments which the United States is contributing to UNESCO's campaign to preserve the temples on the Island of Philae in Egypt which have been inundated by the Nile River waters regulated by the Aswan Dam.

MUSEUM PROGRAMS AND RELATED RESEARCH
(SPECIAL FOREIGN CURRENCY PROGRAM)

Commitment of Funds by Country

	FY 1974 <u>Actual</u>	FY 1975 <u>Estimate</u>	<u>FY 1976 Estimates</u>	
			<u>Ceiling</u>	<u>Program Requirement</u>
Burma.....	-	-	-	\$10,000
Egypt.....	\$1,768,989 ^{/1}	\$1,458,000 ^{/1}	\$1,275,000 ^{/1}	1,508,000 ^{/1}
Guinea.....	-	-	-	3,000
India.....	326,249	598,000	310,000	1,246,000
Pakistan.....	316,994	747,000	246,000	402,000
Poland.....	428,367	120,000	39,000	64,000
Tunisia.....	703,029	477,000	130,000	267,000
Yugoslavia.....	<u>486,813</u>	<u>-</u>	<u>-</u>	<u>-</u>
Total	\$4,030,441	\$3,400,000 ^{/2}	\$2,000,000	\$3,500,000

^{/1} Includes payment to UNESCO of \$1,000,000 equivalent in excess Egyptian pounds for the International Campaign to Preserve the Nubian Monuments.

^{/2} FY 1975 estimated obligations will employ the new appropriation of \$2,000,000 equivalent plus an estimated unobligated balance of \$1,400,000 from prior years' appropriations.

FACILITIES PLANNING, RENOVATION, RESTORATION, AND CONSTRUCTION

Smithsonian requirements for facilities planning, renovation, restoration, and construction are summarized in the following table and notes by appropriation account.

(\$1,000s)

Account	FY 1974	FY 1975	FY 1976 Levels			
			Target	Increment 1	Increment 2	Total
Restoration & Renovation of Buildings	\$1,070	\$1,490	\$1,365	\$3,505	-	\$4,870
Construction & Improvements, National Zoological Park	3,790	9,420	10,000	5,260	10,000	25,260
Construction	<u>17,000</u>	<u>7,000</u>	<u>-</u>	<u>3,690</u>	<u>-</u>	<u>3,690</u>
Totals	\$21,860	\$17,910	\$11,365	\$12,455	\$10,000	\$33,820

The Restoration and Renovation of Buildings account includes \$4,870,000 for the following projects: National History Building fire detection and extinguishing systems, refurbishing of public areas, construction and equipping of a mammal preparation facility, and library space improvements; Mt. Hopkins Observatory road improvements and construction of a telescope service building; Chesapeake Bay Center renovations and repairs; History and Technology Building sixth floor planning, fire detection and extinguishing systems, and conservation space; Fine Arts and Portrait Galleries basement space improvements and safety correction; Arts and Industries Building renovation; Smithsonian South Yard garden improvements and long-range development; general building and facility repairs and improvements; and planning and studies.

Construction and Improvements, National Zoological Park, funding of \$25,260,000 will allow construction of general services and parking facility; construction of lower Rock Creek Valley exhibits; completed planning and initial construction of Beaver Valley exhibits; design and installation of graphics; and repairs, renovations, and improvements at the Zoo and the Front Royal, Virginia, Conservation and Research Center.

The Construction program provides \$3,000,000 for the final liquidation of contract authority for the construction of the National Air and Space Museum and \$690,000 for the first phase of detailed planning for the National Museum Support Facility.

Details on these projects are presented in subsequent sections.

RESTORATION AND RENOVATION OF BUILDINGS

1974 Appropriation.....\$1,070,000
 1975 Appropriation.....\$1,490,000
 1976 Estimate:
 Target.....\$1,365,000
 Increment.....\$3,505,000

 Total.....\$4,870,000

This account is used to fund major repairs, alterations, and improvements, and basic renovations and restorations of buildings and facilities. It is also used for construction of minor new temporary and permanent buildings or other facilities. Facilities planning and studies also are funded from this account. Projects undertaken are in support of research, care and protection of collections, public safety and accommodation, and maintenance of a valuable physical plant.

With funds available from FY 1975 and prior year appropriations, the Smithsonian is carrying forward several significant projects. Notable among these are the air conditioning and renovation of the Arts and Industries Building and the planning for the sixth floor research and library center for the History and Technology Building. The FY 1976 budget request is for \$1,365,000 within the overall target established by OMB and \$3,505,000 above target for a total of \$4,870,000. Projects in both categories are of very high priority to maintain and improve the Institution's facilities.

The requested FY 1976 appropriation will be applied as follows:

<u>Project</u>	<u>Target Level</u>	<u>Increment</u>	<u>Totals</u>
Natural History Building	\$165,000	\$650,000	\$815,000
Mt. Hopkins Observatory	225,000	230,000	455,000
Chesapeake Bay Center	150,000	200,000	350,000
History and Technology Building	225,000	150,000	375,000
Fine Arts and Portrait Galleries	25,000	300,000	325,000
Arts and Industries Building	200,000	300,000	500,000
Smithsonian South Yard	-	700,000	700,000
Greenhouse Facility	-	400,000	400,000
General Building and Facility			
Repairs and Improvements	275,000	475,000	750,000
Planning and Studies	100,000	100,000	200,000
	<u>\$1,365,000</u>	<u>\$3,505,000</u>	<u>\$4,870,000</u>

Details on these projects are provided in the following descriptions.

NATURAL HISTORY BUILDING (\$815,000) - Analyses recently conducted by safety and fire protection experts have shown that a great deal of work needs to be done in the Natural History Building to improve fire safety. First, fire detector and sprinkler protection is presently lacking in most public areas of the building and should be installed as modifications proceed in the exhibit halls. Second, enhancement of sprinkler protection is needed in areas where specimens are stored in flammable liquids in the east and west wings. First priority will be given to providing sprinkler protection in public areas in consonance with the exhibits program. Other fire protection-related needs include provision of booster pumps in order to assure adequate water pressure at the upper floor levels of the Museum and funds for the purchase of fire doors and installation of adequate drains. Fire protection improvements already identified, which must be undertaken over the next few years, will likely cost in excess of one million dollars.

Refurbishment of the most heavily used public areas of the Museum of Natural History are needed now and will become even more necessary in order to serve adequately the visitors expected during the Bicentennial Year and beyond. The doors at the Constitution Avenue and Mall sides of the Museum are badly in need of replacement. The vestibule and portico areas of the Constitution Avenue side of the Museum are poorly lit, barren spaces badly in need of refurbishment. They should be remodeled to provide a comfortable sit-down and introductory area for the Museum. Refurbishment of the great rotunda, the centerpiece of the Museum, will be aimed at making this space more functional as well as more sound.

Thousands of specimens of vertebrate animals, from the tiniest shrews to the largest whales, are collected by the Museum each year for addition to the collections and for research purposes. Preparation includes skinning, cleaning of the skeletons and skulls, and often preservation of the skins. Currently most of this work is carried out in two surplus World War II metal buildings in the west court of the Museum. These buildings are scheduled to be destroyed to make room for a new cafeteria and education facility.

Funds are needed to construct a replacement facility in the east court of the Museum. This space is largely occupied by air-conditioning equipment but a building of approximately 2,000 square feet can be accommodated there. This space would house all of the Museum's skinning and defleshing activities, except for the largest whales. These facilities are vital to the research programs of the Museum and their construction must take place as soon as possible to replace the loss of the existing facilities.

It is also necessary to continue the phased program of library space improvements by decking or extending existing decking in high-ceiling areas; installing library stacks and other necessary furnishings to accommodate additional reference materials; improving lighting and climate control and air systems; and making other necessary improvements.

Funding of \$815,000 is requested for these purposes of which \$165,000 is within target and \$650,000 above target.

MT. HOPKINS OBSERVATORY (\$455,000) - For several years the Smithsonian Astrophysical Observatory (SAO) has been following a phased plan of construction and renovation at its Mt. Hopkins, Arizona, Observatory. By the end of FY 1975, major improvements will have been made on the access and summit roads, the power-distribution system to existing facilities will have been completed, and commercial power will have been installed. Funds are needed to continue with the phased plan of renovation and construction to meet the demands of increased usage of the Mt. Hopkins facilities, particularly now that the multiple-mirror telescope is under fabrication.

As part of the continuing effort to improve the safety and accessibility of the access road, it is proposed to change the grade and widen approximately 2 miles of the access road and to reroute approximately 2 miles of it through Montossa Canyon. Rerouting of the road would replace the existing, exceedingly steep road, which has a 17 percent grade, with a much safer road having a grade of 6 to 8 percent. Further work would complete improvements and upgrading of the access road from the 7,600 foot level down to Montossa Canyon. Improvements include widening of hazardous curves, changing from an out-slope to an in-slope, and installing a drainage system. Approximately 1.8 miles of road beginning at the 7,600 foot level down to the 7,100 foot level would be paved for dust control in proximity to observing facilities and scientific instruments.

A 24-inch telescope and its dome have been made available to SAO by the State University of New York at Stony Brook, Long Island. It is anticipated that this telescope will have been installed in the vicinity of the 60-inch telescope building by early FY 1975. Laboratory and storage space are needed, however, in proximity to the telescope if it is to be used effectively. Since laboratory space is also a problem at the 60-inch instrument, it is proposed that an annex be constructed to the 60-inch telescope building, in order to connect it to the 24-inch telescope shelter. The Annex would provide laboratory space, a darkroom, and storage area to meet the operational needs of both the 60- and the 24-inch facilities.

Funding of \$455,000 is required for these projects of which \$225,000 is within the target level and \$230,000 is above target.

CHESAPEAKE BAY CENTER FOR ENVIRONMENTAL STUDIES (\$350,000) - Some 2,500 acres, acquired by bequest and private funds, are maintained on the Chesapeake Bay, near Annapolis, Maryland, as a primary resource for research and education on complex living systems in an estuarine environment. The Center is used heavily by scientists and students, numbering several thousand a year. Its physical plant consists primarily of old farm buildings, one of which has been renovated to provide administrative and laboratory space. Other structures require major renovation to include interior and exterior repairs, replacements, and finishes and electrical, mechanical, and plumbing installations. In some cases, it may be more economical to replace existing structures. Docks and shore areas, exposed to wave action and deterioration through use, require repairs, replacements, and bulkheading to keep these facilities in use and protect against erosion of valuable property.

An appropriation of \$350,000, \$150,000 within target and \$200,000 above target, is requested for these purposes and to form the basis for a continuing improvement program for the Center.

HISTORY AND TECHNOLOGY BUILDING (\$375,000) - The justification for the addition of a sixth floor research and library center to the present National Museum of History and Technology can be made on the basis of needs and opportunities. Now, ten years after the opening of the Museum to the public, the fifty-five million visitors who have passed through its doors provide positive evidence of a popularity considerably greater than was ever anticipated when the building was planned. The public service activities which the Museum has been required to provide in response to the national public has necessitated the development of new programs and projects not foreseen ten years ago with the result that the Museum is already out of space with no opportunity for further growth.

The Museum's collections of approximately sixteen million artifacts of history is unparalleled in any other institution in the world. Of this number approximately half are related to the history of science and technology. This collection and staff are presently supplemented with considerable holdings of archival materials which due to lack of space remain uncatalogued and unused.

Recently, the largest single library on the history of science and technology in the world was offered to the Museum as a research resource. The library is presently housed in a permanent installation and it is offered to the Museum only if suitable accommodation can be provided. A conservative estimate of the present value of this collection is ten million dollars. It includes a great number of unique items which do not exist elsewhere in the country.

The offer of this library provides the Museum with a unique opportunity. It makes it possible to combine under one roof the largest collection of scientific artifacts, with the greatest existing staff of subject experts and the finest library resource on the subject, a combination which would serve as a magnet to attract important scholars and students from all over the world.

This opportunity to acquire a major library collection admirably serves the present planning to make of the sixth floor an historical research center in which the Museum's present and future library holdings will be centralized for the use of staff and visiting scholars and students as well as members of the public as appropriate. The Museum's programs in museum and conservation training, pre- and postdoctoral fellowships, and visiting scholars in residence will be accommodated on this floor as well as the newly established Dwight D. Eisenhower Center for Historical Research.

Funds are required to complete the final design effort for the research and library facility. They are also needed to sustain the phased improvement of fire detection and sprinkling systems in this building and to continue the development of better space for conservation work. The requested amount is \$375,000 of which \$225,000 is within target and \$150,000 above target.

FINE ARTS AND PORTRAIT GALLERIES BUILDING (\$325,000) - The last expandable area in the Fine Arts and Portrait Galleries Building is the present basement garage. This space of 16,000 square feet is now used mostly for parking. This space is urgently needed for art and documentation storage and for related work areas. It would also be used for custodial locker rooms, building manager's office, and protection personnel. The removal of cars will eliminate carbon monoxide which is damaging to the collections. The security of the building will be greatly facilitated since the garage is now a weak link in total security of the collections. There will also be a conservation of utilities: air conditioning in the summer and heat in the winter. At the present time, since the lack of storage space has reached crisis proportions, individual car bays are being enclosed on a temporary basis. This is both expensive and self-defeating since the areas are unacceptable for that purpose. The only solution to this problem is the permanent conversion of the basement garage to a work and storage area. About one-half of the work is proposed for FY 1976.

Funds are also requested for safety improvements to the third floor area now undergoing renovation for National Portrait Gallery exhibitions. The original cast iron and wood railing surrounding the mezzanine should be raised approximately one foot over its 350 foot length for the protection of visitors and staff.

Funding of \$325,000 is requested for these projects of which \$25,000 is within target and \$300,000 above target.

ARTS AND INDUSTRIES BUILDING (\$500,000) - Original estimates in the early 1970's of the cost of the renovation and restoration of the historic 1879 Arts and Industries Building amounted to about \$5,000,000. The FY 1973 appropriation provided \$3,355,000 for the major portion of the required work and for recreating the original appearance of the rotunda and four main exhibition halls. Major improvements include installing heating, ventilation, and air-conditioning systems; replacing obsolete and inadequate electrical and utilities systems; providing additional public and staff restrooms; and related demolition and restoration incidental to the accomplishment of the project's objectives. This initial work was started in February 1974 and is expected to be completed in February 1976. Prior to this completion, exhibits installation will begin for a major presentation, Centennial-1876, funded as part of the Institution's Bicentennial Program.

Based on current prices about \$2,300,000 of additional work remains to be done to produce a completely restored and renovated facility. This additional work is important to the long-term proper functioning of the building and to protect the structure from weather damage. Major additional jobs to be done include new roofing and insulation (a survey is now underway to determine the extent of the requirement); the repair, replacement, and painting of windows, including double glazing where necessary to maintain proper temperature and humidity conditions and save on utility costs; the installation of an elevator, especially to aid handicapped persons; installation, repair, and painting of arched ceilings; and the preparation of interior spaces for staff and visitor uses. An amount of \$300,000 was appropriated in FY 1975 towards these needs. A further \$500,000, \$200,000 within and \$300,000 above target, is requested for FY 1976 to sustain the renovation work, with the balance of the required funding to be sought in future years.

SMITHSONIAN SOUTH YARD (\$700,000) - Funds are required to continue immediate improvements and long-term development of the South Yard, the area bounded by the original Smithsonian Building, the Arts and Industries Building, the Freer Gallery of Art, and Independence Avenue. The immediate goal for the Bicentennial is to remove the unfortunate aggregation of unattractive sheds, structures, and surface facilities and develop an inviting, restful garden area for visitors. The longer-range plan is to maintain this environment while developing the site for additional productive uses to include areas for research, education, and other public services.

Funds available in FY 1975 will initiate planning for the development of this site, for demolition and removal of existing structures and facilities, and for preliminary construction phases. The FY 1976 requirement is to complete the Bicentennial preparation including landscaping, plantings, fixtures and furnishings, and to plan for the phased development of the site subsequent to the Bicentennial. An amount of \$700,000 above target is requested for these purposes.

GREENHOUSE FACILITY (\$400,000) - Horticultural improvements in and around Smithsonian buildings have added appreciably to their appearance and have contributed significantly to visitor pleasure and education. A greenhouse and propagation facility is badly needed to support this landscaping and grounds maintenance program. Such a facility would assure an adequate and varied supply of materials for seasonal plantings, for educational displays of rare and exotic plants, and for interior plantings to enhance exhibitions and other public presentations. It is anticipated that long-range savings over the costs of commercially provided plant materials can be realized. Funds of \$400,000 above target will be used for site preparation; planning and construction of the greenhouse and associated structures (head house, cold frames, lathe house, and storage area); and installation of utilities, heating, and humidification systems.

GENERAL BUILDING AND FACILITY REPAIRS AND IMPROVEMENTS (\$750,000) - The Smithsonian has major museum buildings (ranging in age from new to well over 100 years old) with a replacement value of several hundred million dollars, many lesser structures used for research, exhibition, collections management, and administrative purposes, and several thousand acres of land devoted to research, conservation, and education. Heavy public use of these facilities, general deterioration because of age and weathering, safety requirements, and the occasional need to make improvements or additions to keep pace with program requirements, create a need for regular, annual attention. Anticipated, mostly major, needs are budgeted in this account under specific building or project headings. There is strong need, however, for funds for planning, engineering, repair, and improvement response to other projects, including those arising during the year, that are beyond the capability of the Institution's maintenance support effort. Examples of such work are: interior reconstructions to meet program requirements; installation of new or replacement plumbing, electrical, and mechanical distribution systems, including heating, ventilating, and air conditioning; roof repairs and replacements; maintenance and repairs to masonry and other building exteriors to prevent structural damage; and major repairs to elevators and escalators.

Funding of \$750,000 for these needs is requested. Of this total, \$275,000 is within target and \$475,000 above target.

PLANNING AND STUDIES (\$200,000) - An appropriation of \$200,000 (\$100,000 within target and \$100,000 above target) is required to augment the staff capability of the Smithsonian's Office of Facilities Planning and Engineering Services by obtaining professional architectural, engineering, and related services in support of proposed construction, repair, improvement, renovation, and restoration projects. The number, scope, size, and complexity of projects require that contract assistance be obtained. Resulting benefits include better developed projects and sounder cost estimates on which to base requests for actual work performance.

CONSTRUCTION AND IMPROVEMENTS, NATIONAL ZOOLOGICAL PARK

1974 Appropriation.....	\$3,790,000
1975 Appropriation.....	\$9,420,000
1976 Estimate:	
Target.....	\$10,000,000
Increment I.....	\$5,260,000
Increment II.....	\$10,000,000
 Total.....	 \$25,260,000

This appropriation is used to fund repairs, alterations, and improvements to existing facilities including exhibits; to prepare plans and specifications for construction; and to perform major renovations, restorations, and new construction implementing the Master Plan approved by the Commission of Fine Arts and the National Capital Planning Commission in FY 1973. The Master Plan schedule is shown on page 61.

Established in 1890, the National Zoological Park's facilities for animal care, exhibition, research (including conservation), service and support, and administration were by the early 1960's outmoded, cramped and hazardous to animals, visitors, and staff. Animal facilities fell far short of acceptable modern standards for care, health, breeding, exhibition for education purposes, and research for conservation. Growing numbers of visitors' requirements for parking, orientation, and food service to make their visit pleasant and educational were not being met. Administrative, crafts and trades, animal care, police, and other essential staff were scattered throughout the Zoo in old and inefficient buildings that lowered work effectiveness and morale. Only limited improvements were possible during the 1960's. The renovated bird house and new flight cage were completed in 1964. The new hospital and research building was completed in 1969.

With the approval of the new Master Plan, however, and the support of the Administration and the Congress, the renovation of the Zoo has been stepped up. The panda, monkey, and puma (for temporary use) houses have been remodeled using a reprogrammed prior year appropriation of about \$1,400,000. With \$3,000,000 appropriated in FY 1974, the completely new lion and tiger exhibit is now under construction and will be completed in late FY 1976. The FY 1975 appropriation provides for the expansion and improvement of the elephant house yards and bird house plaza (\$2,970,000) also to be ready by the summer of 1976, for the construction of an education and administration building (\$2,500,000), for the completion of planning and first phase of construction of the general services and parking facilities (\$2,700,000). Work on these projects will be underway this year. Also during these years funds have been appropriated to repair existing facilities and to plan future large scale projects in order to sustain the momentum of the Master Plan's execution.

The requested FY 1976 appropriation will be applied as follows:

(\$1,000s)

<u>Project</u>	<u>Target Level</u>	<u>Increment I</u>	<u>Increment II</u>	<u>Totals</u>
General Services & Parking Facilities	5,000	1,900	10,000	16,900
Lower Rock Creek Valley	3,000	2,950	-	5,950
Beaver Valley	490	410	-	900
Graphics	100	-	-	100
Renovation and Repair	650	-	-	650
Front Royal, Virginia, Conservation Center Renovation	760	-	-	760
Totals	10,000 <u>/1</u>	5,260 <u>/2</u>	10,000 <u>/3</u>	25,260

Details on these projects are provided in the following sections. The provision of funds above the target level will speed up the completion of the renovation program and reduce future years' appropriation requirements.

General Services and Parking Facilities (\$16,900,000). These facilities are pivotal to the entire Master Plan construction program. They will provide improved access and accommodation for visitor parking, contain approximately 900 parking spaces for a total of 1730 (the Zoo now has 1030 spaces), and, equally important, centrally house and organize all service and support functions of the Zoo. These are craft and trade shops and offices, gardening shops, animal commissary, motor pool, supply offices and stockrooms, and protective services. Space vacated elsewhere in the Zoo by these activities and certain current parking areas (some 12 acres) will become available for animal and public service development projects that are keys to the success of the Master Plan. Some of these projects are new monkey exhibits, exhibits for small and medium sized cats, and exhibits for large plains animals.

/1 Amount relates to target appropriation level and not to a planned phased increment of the Master Plan.

/2 Additional amount required to keep up with program base plus inflation.

/3 Additional amount which if appropriated in FY 1976, could save \$1,100,000 on final project completion.

These facilities will be located along Rock Creek adjacent to the roadway which now connects the Connecticut Avenue and Harvard Street entrances to the Zoo. The architect's design adapts the structure to the hillside and blends the floor levels to a slope thereby minimizing the visual impact from Rock Creek Drive. Landscaped terraces and planter boxes will reduce further any intrusion of this structure on the natural character of the area.

Total cost of these facilities is estimated at \$19,900,000 of which \$300,000 was appropriated in FY 1974 for first phase planning and \$2,700,000 in FY 1975. The FY 1975 appropriation will permit final plans and specifications to be completed and ready for bidding by July 1975 and, depending on the likely level of the FY 1976 appropriation, would allow an initial construction increment consisting of access and site preparations to be placed under contract.

The requested FY 1976 appropriation at three levels would do the following:

--\$5,000,000 target level (plus funds from the \$2,700,000 appropriated in FY 1975 and which would be used in advance for limited site development and site access) would be sufficient to construct only the general services portion of the structure. This would be a fully usable portion.. It would be necessary to obtain an appropriation of \$13,000,000 in FY 1977 to build the parking structure portion. This is a \$1,100,000 increase in the total cost resulting from the requirement for two or more bidding actions, two contractors, and two mobilization and demobilization efforts. It is recognized that \$13,000,000 may not be an attainable appropriation in one year and that an increment plus escalation would have to be carried over to FY 1978. For each year after FY 1977, the cost would increase by 10 to 12 percent from inflation.

--\$5,000,000 target level plus a \$1,900,000 increment would permit the Services portion to be constructed and free funds from the FY 1975 appropriation for all of the originally planned access road work.

--Full \$16,900,000 funding would allow the entire job to be placed promptly under contract at a cost savings of \$1,100,000.

Lower Rock Creek Valley (\$5,950,000). The FY 1974 and 1975 appropriations provided a total of \$500,000 to prepare construction plans and specifications for Master Plan Group VI projects located in the Lower Rock Creek area. By July 1975, the Zoo will be ready to obtain bids for projects consisting of new polar and grizzly bear exhibits and complete renovation (rather than new to cut costs) of existing bear dens for sun, sloth, and spectacle bears and for the Smokey exhibit. All bears will be exhibited with increased space for their well-being and with minimum visual obstruction between them and visitors by the use of water moats and other techniques. The reconstruction of the bear dens is an essential safety and health requirement. Present facilities were constructed in 1902 and are badly deteriorated. The cement pools have major cracks through which hundreds of gallons of water are lost daily. Bars have rusted so badly that in many places there is insufficient metal to which replacement bars can be welded.

In addition there will be exhibits of goats, sheep, and baboons with excellent hillside viewing and with associated audio-visual exhibits. New walkways, utility services, and service roads, including a bridge across Rock Creek, will be provided.

The requested FY 1976 appropriation at two levels would accomplish the following:

--\$3,000,000 target level would be applied only to the bear exhibits including the rehabilitation of the existing bear dens.

--Full \$5,950,000 funding would allow the entire project to be executed and save future year cost escalation on the balance of the work.

Beaver Valley (\$900,000). Advance planning for the several projects in Beaver Valley (Master Plan Group VII) has been started with \$80,000 appropriated in FY 1975. The projects in this group include a beaver exhibit, constructed in a manner to show the beaver in action in the water, dam building, and in his lodge; a new North American otter pool; a major exhibit pool for seals and sea lions; and a new enclosure for wolves.

The requested FY 1976 appropriation at two levels would provide for the following:

--\$490,000 target level would allow a major portion of the total plans and specifications to be completed.

--Full \$900,000 funding would allow all planning to be completed and a start on the construction of relocation facilities in advance of major construction in FY 1977. Construction costs are estimated at about \$9,000,000.

Design and Installation of Graphics (\$100,000). A graphics design consultant has been retained by the Zoo to work with the Master Plan architect and with the exhibits and education offices to upgrade and standardize graphics and street furniture and to identify and coordinate graphic needs for new facilities. This will result in approved standards for exhibits, street signs, building signs, benches, trash containers, light posts, and telephone booths. As new facilities are completed, the approved graphics and street furniture designs should be implemented. In order to service Bicentennial visitors, an appropriation of \$100,000 at the target level is required for the lion and tiger exhibit, elephant and bird house yards, and other areas.

Renovation and Repair (\$650,000). An amount of \$650,000 is required to continue the program of renovation, repairs, and preventive maintenance of existing facilities. This funding is required to keep the heavily used Zoo in safe condition for the visiting public, for the upkeep and improvement of animal enclosures and staff facilities, and to maintain new buildings in good condition so that in the future the Zoo will not be faced with an overwhelming backlog of repairs. Renovation and repair projects include painting, roof patching and replacement, electrical repairs and improvements, repairs and extensions to water, steam, and other utilities, and fence, road, curb, and sidewalk repairs and improvements for safety. Projects are accomplished by contracts and by the use of Zoo crafts and trades personnel with supplies, materials, and equipment furnished by this account.

Front Royal, Virginia, Conservation Center Renovation and Improvements (\$760,000). An appropriation of \$760,000 is sought to make repairs, modifications, and improvements to the National Zoological Park's Animal Conservation and Research Center. This 3,400 acre site, the former Beef Cattle Experiment Station at Front Royal, Virginia, was declared excess by the U.S. Department of Agriculture in November, 1973. A temporary use permit was granted by the General Services Administration to the Smithsonian in January, 1974. Formal transfer of the property to the Institution is pending.

The site will be used by the Zoo for breeding endangered wildlife species and for associated conservation and research efforts. Breeding groups will be assembled in cooperation with other zoos. Other important uses include holding animals displaced temporarily by Master Plan construction at the Zoo (as well as animals obtained in anticipation of construction completions) and farming land to produce an ample supply of selenium-rich hay needed for animal health which must now be purchased from the Midwest.

Funds are required to continue the installation of containment fencing and cages. Existing buildings will be modified to provide space for animal housing, commissary facilities, administration, research, and housing for personnel. The water, sewage, and electrical systems must be renovated to insure continued dependable service. Master planning for the future use of the Conservation Center will be accomplished.

NATIONAL ZOOLOGICAL PARK MASTER PLAN SCHEDULE

PROJECT GROUP	PROJECT NUMBER	PROJECT	ESTIMATE (1976 VALUE)	PLANS & SPECS.	CONSTR.	ESTIMATED COMPLETION DATE
I	1	Monkey House)				12/74
	2	Puma House)	Authorized prior to FY 1973			12/74
	3	Panda House)				Complete
II	4	Lion & Tiger Exhibit	\$ 3,275,000	FY 73	FY 74	7/76
III	5	Elephant Yards	1,450,000	FY 74	FY 75	9/75
	6	Bird House Plaza	1,680,000	FY 74	FY 75	9/75
IV	7	General Svc-Parking	19,900,000	FY 74,75	FY 76	8/77
V	8	Education-Visitor Center	2,500,000	FY 75	FY 75	8/77
VI	Lower Rock Creek Valley		6,450,000	FY 74,75	FY 76	7/77
	9	Bears				
	10	Sheep & Goats				
	11	Baboon Quarry				
	14	Roadway & Utilities				
	20	Polar Bears				
VII	Beaver Valley		10,000,000	FY 75,76	FY 77	12/78
	15	Beavers				
	16	Wolves				
	17	Seals & Sea Lions				
	18	N. American Otters				
VIII	Central Area Complex		14,000,000	FY 75,77	FY 78	7/79
	21	Small Mammal House Ren.				
	22	Crocodiles & Komodo Dragon				
	23	New Monkey House				
	24	Monkey Island				
IX	Waterfowl Pond Complex		12,000,000 ^{/1}	FY 75,78	FY 79	1/80
	26	Waterfowl Pond Remodeling				
	27	Lesser & Medium Cats				
	28	Plains Animals				
X	Building Renovation		3,000,000	FY 79	FY 80	7/79
	29	Reptile House				
	30	Elephant House				

PROJECT GROUP	PROJECT NUMBER	PROJECT	ESTIMATE (1976 VALUE)	PLANS & SPECS.	CONSTR.	ESTIMATED COMPLETION DATE
XI		Connecticut Avenue Complex	8,000,000	FY 79	FY 80	7/81
	31	Restaurant & Cafeteria				
	32	Entrance, N. Amer. Animals				
XII		Aquatic Habitats Exhibits Area	12,000,000	FY 80	FY 81	7/82
	12	Aquatic Habitats				
	15	Penguins				
	33	Manatee				
	34	Kiwi				
	35	Sea Otters				
	36	Platypus				
	37	Hawks & Owls				
XIII		Holt House Area	2,500,000 ^{/1}	FY 81	FY 82	1/83
	38	Holt House Ren. & Greenhouse				
	39	Research-Holding Nursery				
XIV		North Road Area	15,000,000 ^{/1}	^{/2} FY 82	FY 83	7/84
	40	Klingler Street Bridge				
	41	Large Plains Animals				
		Total Cost	\$111,755,000 ^{/3}			

Estimates include plans and specifications, all utilities, walks and roads in Master Plan area, landscaping, graphics, exhibits, construction contingencies and escalation to July 1976.

^{/1} Projects may be reduced approximately \$10,000,000 by reprogramming to Front Royal Conservation Center.

^{/2} This project includes animal exhibits above future underground parking structures.

^{/3} This amount represents the \$99,180,000 Master Plan program described in the previous year's justifications, updated by escalation of costs to FY 1976.

CONSTRUCTION

This account encompasses major planning and construction projects other than those of the National Zoological Park. Included are the Hirshhorn Museum and Sculpture Garden, the National Air and Space Museum, and the proposed National Museum Support Facility. Funding of \$3,000,000 is requested for the liquidation of the Air and Space Museum contract authority and \$690,000 for the first planning phase of the Museum Support Facility.

Hirshhorn Museum and Sculpture Garden - The Hirshhorn Museum and Sculpture Garden, located on the Mall between 7th and 9th Streets, S. W., is now virtually completed. Staff has occupied the building, paintings and sculptures are being put into place, and the Museum will open to the public in October 1974. The project was authorized by Public Law 89-788 approved November 7, 1966 (20 U.S.C. 76ee) and appropriations totaling \$15,000,000 (plus a gift of \$1,000,000 by Mr. Joseph H. Hirshhorn towards construction) were provided in fiscal years 1968 through 1972.

National Air and Space Museum (\$3,000,000 liquidation of contract authority) - Construction of the the National Air and Space Museum on the Mall between 4th and 7th Streets, S. W., is now about 60 percent complete and on schedule to be substantially completed in June 1975. This will allow one year for occupancy and the installation of exhibits for a public opening on July 4, 1976. The project's costs are within the authorized funding of \$40,000,000. Public Law 89-509 approved July 19, 1966 (20 U.S.C.77) authorized construction of this Museum. Planning funds of \$1,900,000 were provided in the FY 1972 appropriation. The FY 1973 Appropriation Act provided \$13,000,000 plus additional contract authority of \$27,000,000. Appropriations to liquidate this contract authority have been provided in FY 1974 (\$17,000,000) and in FY 1975 (\$7,000,000). An appropriation of \$3,000,000 is required in FY 1976 to complete contract authority liquidation.

National Museum Support Facility Planning (\$690,000) - Legislation now before the Congress (S.857 passed the Senate on August 1, 1974) would authorize the Smithsonian to prepare plans for museum support facilities on Federally-owned land within the metropolitan area of Washington, D. C., for the care, curation, conservation, deposit, preparation, and study of the National Collections of scientific, historical, and artistic objects, specimens, and artifacts. These facilities would also be used for the related documentation of such collections and for the training of museum conservators.

The Smithsonian has legislated responsibility to develop, preserve, study, exhibit, and interpret the National Collections of objects and specimens and to provide related documentation in the fields of history, science, and art. These are of necessity growth activities and the collections now number some 70 million significant items. Even though acquisitions are rigidly screened, the annual rate of increase over the past two decades has been about 1 million objects and specimens.

In the National Museum of Natural History, for example, collections are crowded to the point of being inaccessible for efficient consultation and retrieval. Staff and visiting students, scholars, and scientists work in cramped quarters, the collections overflow into corridors, and also occupy some 40,000 square feet of space designed for exhibits but now closed to the public. Studies show that an additional 483,000 net square feet of space are required outside of the Natural History Building to remedy present over-crowding, to return valuable space on the Mall to public use, and to provide for the growth of collections in the six years required to plan and construct the initial support facilities building. Other areas of the Institution, including collections management and conservation, have similar needs.

To accommodate the development of museum support facilities the Smithsonian is requesting the transfer of Federally-owned land adjacent to the present Smithsonian site in the Silver Hill section of Suitland, Maryland. The present site will continue to be used by the National Air and Space Museum as its support facility. This location is 6 1/2 miles from the Mall. The General Services Administration has included the Smithsonian's need in the Master Plan concept for the development of the Suitland Federal Center. The GSA's plan contemplates that a total of 71 acres will be transferred for the development of the Institution's long-range plans. Several boards or commissions having interests in the development of the area have reviewed the GSA's plans and have endorsed the Smithsonian's portion.

The long range development of the support facility would be in increments over a period of years as authorization and appropriations for successive stages are approved. This would provide for an ultimate total of close to 2 million gross square feet estimated to be the projected long-term need of the Institution for space at the support facility during this century.

The GSA's estimate of the total project cost of the Phase I building of some 776,000 gross square feet (528,000 square feet of assignable space) based on prices current on May 1, 1974, is \$35,238,000. This includes \$1,574,000 for total estimated design and review costs. The Phase I building would include space for the National Museum of Natural History and the Smithsonian Oceanographic Sorting Center, for a conservation laboratory and training center, and for visitor reception and use.

An appropriation of \$690,000 (the amount specified in S. 857) is requested in FY 1976 to allow a substantial increment of the planning to proceed. This would provide for architectural and engineering services including surveys and soil tests, consultation, conceptual design, preliminary drawings and specifications, further estimates of construction costs, including the related adjustments required to be made to the Natural History Building, and other services.

Smithsonian Institution

EMPLOYMENT CEILINGS

	As of June 30 FY 1974		As of June 30 FY 1975		As of June 30 FY 1976	
	<u>Full-time</u> <u>Permanent</u>	<u>Total</u>	<u>Full-time</u> <u>Permanent</u>	<u>Total</u>	<u>Full-time</u> <u>Permanent</u>	<u>Total</u>
Salaries & Expenses	2,646	2,996	3,018	3,383	3,347	3,747

(\$1,000s)

Outlay Estimates

Appropriation	FY 1974		FY 1975		FY 1976	
	OMB Target ^{/1}	Actual ^{/2}	OMB Target ^{/1}	Estimate	OMB Target ^{/1}	Estimate
Salaries and Expenses	\$60,439	\$55,360	\$66,424	\$61,643	\$72,589	\$80,315
Supplemental	...	...	...	2,828	...	231
Science Information Exchange	1,695	1,691	1,770	1,755	1,770	1,855
Supplemental	...	...	...	41	...	9
Museum Programs & Related Research	3,489	2,950	3,600	3,000	4,500	4,000
Restoration and Renovation of Buildings	3,500	1,324	3,806	4,200	} 13,000	5,434-4744
Construction	28,881	15,196	11,000	21,000		5,285 5915
Construction & Improvements, National Zoological Park	1,810	872	5,400	5,452		14,540
Miscellaneous construction	100	18	...	76		...
Trust Funds	...	57	40	48	40	50
Offsetting deductions (-)	...	...	-2	...	-2	...
Total	\$99,914	\$77,468 ^{/3}	\$92,038	\$97,174 ^{/4}	\$91,897	\$111,479
Supplemental	...	...	...	2,869	...	240

/1 From Office of Management and Budget letter dated February 4, 1973.

/2 From Preliminary June 30, 1974 Report.

/3 \$22,446 below OMB target of which \$13,685 is in the Construction account. The amount requested for inclusion in the target for Construction was based on information from the General Services Administration.

/4 Includes an additional \$10,000 for Construction that was underexpended in FY 1974.

SMITHSONIAN INSTITUTION

FEDERAL APPROPRIATION BY PROGRAM CATEGORY^{/1}

(\$1,000s)

<u>PROGRAM (\$)</u>	<u>FY 1973</u>	<u>FY 1974</u>	<u>FY 1975</u>	<u>FY 1976</u>
Pos. (Full-time Perm.)	2,699	2,880	3,182	3,573
Science	\$18,800	\$23,259	\$26,555	\$33,723
History and Art	8,600	11,770	14,876	17,103
Public Service	2,300	2,273	2,294	2,536
Museum Programs	5,900	4,460	5,250	6,002
Administration	4,000	5,027	5,168	6,018
Building Maintenance & Protection	<u>12,000</u>	<u>11,754</u>	<u>13,646</u>	<u>17,144</u>
TOTAL \$ Budget Authority	\$51,600	\$58,543	\$67,789 ^{/2}	\$82,526
Outlays	\$48,538	\$55,360	\$61,643	\$80,315

<u>PROGRAM (%)</u>				
Science	36.4	39.7	39.2	40.8
History and Art	16.7	20.1	21.9	20.7
Public Service	4.4	3.9	3.4	3.1
Museum Programs	11.4	7.6	7.8	7.3
Administration	7.8	8.6	7.6	7.3
Building Maintenance & Protection	<u>23.3</u>	<u>20.1</u>	<u>20.1</u>	<u>20.8</u>
TOTAL %	100.0	100.0	100.0	100.0

^{/1} Excludes SSIE and Special Foreign Currency.

^{/2} Excludes Supplemental Request of \$3,059.

Smithsonian Institution
Facilities Planning, Renovation, Restoration, and Construction
Budget Authority and Outlays
FY 1974 - 1984

Estimates include price escalation to July 1976.

(\$1,000s)

	1974		1975		1976		1977		1978		1979		1980		1981		1982		1983		1984		Totals	
	BA	O	BA	O	BA	O	BA	O	BA	O	BA	O	BA	O	BA	O	BA	O	BA	O	BA	O	BA	O
I National Zoological Park																								
Master Plan:																								
Monkey, Puma, & Panda Houses /1	-	150	-	369	-	100																	-	619
Lion and Tiger Exhibit	3000	167	-	1558	-	1500																	3275	/2 3275
Elephant and Bird House Yards	160	82	2970	1178	-	1650	-	220															3130	3130
Gen'l Services and Parking	300	35	2700	1227	16900	5000	-	10038	-	3600													19900	19900
Education-Visitor Center			2500	-	-	1000	-	1500															2500	2500
Lower Rock Creek Valley	100	10	400	390	5950	3000	-	3050															6450	6450
Beaver Valley			80	80	900	900	9020	2020		7000													10000	10000
Central Area Complex			100	50	-	50	900	500	13000	2400													14000	14000
Waterfowl Pond Complex			20	10	-	10			980	500	11000	2480	-	8000	-	1000							12000	12000
Building Renovation									300	200	2700	1800	-	1000									3000	3000
Connecticut Ave. Complex									500	200	7500	2800	-	4000	-	1000							8000	8000
Aquatic Habitats											1000	500	11000	2500	-	7000	-	2000					12000	12000
Holt House Area															200	100	2300	1400	-	1000			2500	2500
North Road Area																	1000	500	14000	4500	-	10000	15000	15000
Graphics																							100	100
Subtotals	3560	444	8770	4862	23850	13310	9920	17328	13980	13500	11800	11880	11200	15100	11200	8600	3300	9900	14000	7500	-	10000	111855	112474
Front Royal Center /4			125	100	760	485	980	780	1200	1100	1420	1320	1200	1300	980	980	760	760	500	600	500	500	8425	7925
Repairs	230	428	650	590	650	745	650	600	650	650	650	650	650	650	650	650	650	650	650	650	650	650	6750	6913
Totals	3790	872	9545	5552	25260	14540	11550	18708	15830	15250	13870	13850	13050	17050	12830	10230	4710	11310	15150	8750	1150	11150	127010	127312
II Other Major Projects																								
Hirshhorn Mus. & Sculpt. Garden	-	3343	-	1170	x	3000	x	5285															-	4513
Nat. Air & Space Museum /5	14000	11853	7000	19830	0	500	0	1140	0	500	0	500	0	500	0	500							41900	/6 36968
Arts & Indus. Bldg. Renovation	-	560	300	1700	0	500	0	125	0	500	0	400	0	2300	-	0	3000						5655	/7 4900
Hist. & Tech. Library Addition	25	-	-	175	0	125	0	690	0	690	0	690	0	45500	x	1000	-	15000	-	14500			5800	/8 5800
National Museum Support Fac.					x	690	x	690	x	690	x	690	45500	1000	-	15000	x	7000	x	1000	-	2000	46880	/10 46880
South Yard Development /9			300	300	0	700	0	700							-	4000	-	2000					8000	8000
Millimeter Wave Telescope					x	500	x	500					9500	x	1000	-	4000	-	500				10000	10000
Mall Site Museum													-	4000									42400	35100
Totals	17025	15756	7600	23175	5015	7940	7190	2090	46000	4300	10000	18800	7000	20000	1200	23600	1200	3500	40000	13000	-	20000	160635	152161
III General Building and Facility																								
Repairs and Improvements and																								
Minor New Construction	1045	764	1065	1925	0	3545	0	2779	0	3500	0	3000	0	3500	0	3000	0	3500	0	3000	0	3500	0	3000

O = R+R
x = Const.

- /1 Funded from reprogrammed prior year appropriation.
- /2 Includes \$275 for planning appropriated in FY 1973.
- /3 Includes \$50 from FY 1973.
- /4 Estimates include limited accommodations for public service. Any major public facilities will require additional appropriations
- /5 Liquidation of Contract Authority is \$17,000 in FY 1974; \$7,000 in FY 1975; and \$3,000 in FY 1976.
- /6 Includes \$1,900 appropriated in FY 1972 for planning and \$13,000 appropriated in FY 1973 towards construction.
- /7 Includes \$3,355 appropriated in FY 1973.
- /8 Includes \$150 appropriated in FY 1973 for planning.
- /9 Includes planning and development for Bicentennial and longer-range requirements for Freer Gallery of Art and other purposes.
- /10 GSA estimate of \$35,000 at May 1974 costs escalated 10 percent a year.

SMITHSONIAN INSTITUTION LIBRARIES



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